

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON AT SEATTLE.

WESTERN TOWBOAT COMPANY,)	CASE NO. C20-00416-RSM
)	
Plaintiff,)	Seattle, Washington
)	
v.)	July 1, 2021
)	9:00 a.m.
VIGOR MARINE, LLC,)	
)	BENCH TRIAL
Defendant.)	Vol. 4 of 5
)	

VERBATIM REPORT OF PROCEEDINGS
BEFORE THE HONORABLE RICARDO S. MARTINEZ
CHIEF UNITED STATES DISTRICT JUDGE

APPEARANCES:

For the Plaintiff: J. STEPHEN SIMMS
Simms Showers LLP
201 International Circle, Suite 230
Baltimore, MD 21030

ANTHONY J. GASPICH
Gaspich Law Office PLLC
8094 NE Barthrop Place
Bainbridge Island, WA 98110

For the Defendant: CHRISTOPHER H. HOWARD
DAVID R. BOYAJIAN
Schwabe Williamson & Wyatt
1420 Fifth Avenue, Suite 3400
Seattle, WA 98101

NOAH JARRETT
Schwabe Williamson & Wyatt
1211 SW Fifth Avenue, Suite 1900
Portland, OR 97204

ADAM MURRAY
Schwabe Williamson & Wyatt
700 Washington Street, Suite 701
Vancouver, WA 98660

EXAMINATION OF	EXAMINATION INDEX	PAGE
RUSSELL SHREWSBURY	DIRECT EXAMINATION BY MR. SIMMS	587
	CROSS-EXAMINATION BY MR. JARRETT	637
	REDIRECT EXAMINATION BY MR. SIMMS	664
PATRICK HUDSON	DIRECT EXAMINATION BY MR. SIMMS	667
	CROSS-EXAMINATION BY MR. HOWARD	695
	REDIRECT EXAMINATION BY MR. SIMMS	715
DAVID KRIEBEL	DIRECT EXAMINATION BY MR. SIMMS	719
	CROSS-EXAMINATION BY MR. BOYAJIAN	727
	REDIRECT EXAMINATION BY MR. SIMMS	744
BRUCE FOX	N/A	750
MICHAEL NAYLOR	DIRECT EXAMINATION BY MR. HOWARD	760
	CROSS-EXAMINATION BY MR. SIMMS	789
	REDIRECT EXAMINATION BY MR. HOWARD	806

1 PROCEEDINGS

2

3 THE COURT: Counsel, call your next witness.

4 MR. SIMMS: Your Honor, we will call Russ Shrewsbury,
5 who is in the restroom as we speak.

6 So the order of witnesses today will be Russ Shrewsbury,
7 then we'll hear from Dr. Patrick Hudson, and then we'll hear
8 from Bruce Fox, Captain Fox.

9 Will Mr. Naylor be here today?

10 MR. HOWARD: He'll be here this afternoon.

11 MR. SIMMS: Then we'll call Mr. Naylor this afternoon,
12 and then we'll call Dr. Kriebel.

13 THE COURT: Mr. Shrewsbury, good morning. If I could
14 have you step up before the clerk to be sworn to testify prior
15 to testifying.

16 RUSSELL SHREWSBURY,
17 having been first duly sworn, testified as follows:

18 THE CLERK: Please state your name for the record, and
19 spell your name for the court reporter.

20 THE WITNESS: It's Russell Shrewsbury,
21 S-h-r-e-w-s-b-u-r-y.

22 THE COURT: You may inquire, counsel.

23 DIRECT EXAMINATION

24 BY MR. SIMMS:

25 Q. So Mr. Shrewsbury, tell us what you do at Western Towboat.

1 A. I'm the vice president and captain.

2 Q. And you're also Bob Shrewsbury's son?

3 A. Yes. Third generation mariner at Western Towboat.

4 Q. How long have you worked with Western Towboat?

5 A. Well, my mom was on the tug pregnant with me, so I guess 37
6 years. But as a deckhand, I started as a full-share deckhand at
7 13, but going to Alaska is five.

8 Q. Since five years old.

9 How many times as a deckhand, as a -- do you hold a
10 master's license?

11 A. I do. I have a 3rd Mate Unlimited and a Master of Towing,
12 which is, basically, good for all towing vessels.

13 Q. Have you ever towed up and down the West Coast?

14 A. I have.

15 Q. How many times?

16 A. Oh, probably ten. I've been in the Panama Canal a couple
17 of times -- oh, probably more, like, 20, actually.

18 Q. And did you go to school?

19 A. I went to Cal Maritime. I graduated in 2006.

20 Q. What were some of the courses you took at Cal Maritime?

21 A. I was transportation, like Stephen and Rich Shaw, so we had
22 stability, navigation, meteorology, bridge simulation; a whole
23 bunch of different things.

24 Q. What was your degree from Cal Maritime?

25 A. I was a bachelor of science in marine transportation, and I

1 almost minored in law.

2 Q. All right. Almost.

3 And so tell the court about the relationship between
4 Western Towboat and Vigor.

5 A. We've been doing dry dock work around Seattle for Vigor
6 tows, various things, I'd say, for as long as I can remember,
7 probably 30-plus years, before Vigor was Todd Shipyard. And we
8 performed a lot of the dry dockings at Todd when I was growing
9 up as a deckhand.

10 And I worked in the harbor for about ten years prior to
11 coming into the office as a master, and we exclusively do all of
12 their dry dock operations and tows from various places with
13 different types of things: Navy caissons, ships, ferries,
14 barges in and out of the shipyard to different destinations
15 around Puget Sound and Portland; stuff like that.

16 Q. When you were doing this work, how long have you yourself
17 been moving things around, first Todd, and then when Vigor took
18 over the Vigor shipyard?

19 A. I would say -- let's see. I started working on the
20 weekends in high school, so that would be 1998 and '99.

21 Q. On your route from home to the office, does that take you
22 by Vigor Shipyard?

23 A. I live just north of Seattle, so -- well, when I drive
24 to -- the time, I was working out of Harbor Island, so, yeah,
25 I'd drive by the shipyard on Aurora/99 when we had a viaduct.

1 Q. During all that time, did you see the 70?

2 A. Yeah. When I was working the harbor, we'd sometimes
3 transit up and down the river past Vigor Shipyard maybe 20, 30
4 times a day.

5 Q. And did you ever see the 70 taken apart into more than one
6 piece?

7 A. I don't remember ever seeing that, no.

8 Q. So have you always seen the 70 in one piece?

9 A. Yes.

10 Q. And you've been here since Monday, since we started trial.
11 You've heard all the testimony, and you were here for Dan Keen's
12 testimony about what Vigor hires Western to do and what it
13 doesn't. Do you agree with that?

14 A. No.

15 Q. Please tell us why.

16 A. I just quoted a job to tow the Pacific Collector from
17 Portland to Seattle -- what was that? -- six months ago. So
18 Vigor does contract us to do outside towing. Dan said they have
19 not since this incident, and that's false.

20 Q. And did somebody at Vigor reach out and ask for that quote?

21 A. Clint Krueger of Portland.

22 Q. Okay.

23 And so what does Western continue to do now for Vigor? Is
24 there a business relationship?

25 A. There is, yeah. Dan and I talk all the time. This last

1 week we put a DDG in dry dock, an LCS Navy ship. We do all the
2 Washington State ferries; caissons. We moved both their old dry
3 docks, one from Everett to Seattle for dismantling/scrapping at
4 their shipyard. We moved a concrete dry dock from Tacoma. We
5 towed it up to Seattle for dismantling. So we've moved a few
6 different oddball things for them.

7 Q. Are there any Shrewsburys in your family that might be
8 coming into this business sometime?

9 A. Yeah. I've got two kids, a daughter and a son.

10 Q. How old are they?

11 A. Four and a half and two and a half.

12 Q. So that will be a while.

13 A. Yeah, and then I can retire.

14 Q. Okay.

15 So do you consider Dan a friend?

16 A. Absolutely, yeah.

17 Q. How long have you known Dan?

18 A. Since he started at Vigor. I think he said 2013. I guess
19 it is. Time seems to fly now.

20 Q. What do you understand Dan's responsibility to be at Vigor?

21 A. Dan's in charge of all the docks and the moves we do. So
22 when we talk with Dan, he's going to tell us, you know, how he
23 wants vessel in dry dock, when he wants it due to tide, and
24 he'll cancel dry dockings if the weather is bad or something
25 like that. He's, basically, Vigor's liaison to Western Towboat.

1 He orders the tugs and directs what we need to do at the
2 shipyard for him.

3 Q. Well, do you ever talk with Dan -- we all talk with each
4 other about the weather -- but do you ever talk to Dan about the
5 weather in connection with work that Western does?

6 A. Oh, all the time.

7 Q. Did that indicate to you that Dan is regularly monitoring
8 the weather?

9 A. Yes, because he's canceled dry dockings before due to high
10 winds in the Sound or something like that.

11 Q. And we'll get to the day of the departure, but I want to
12 still go back a little bit.

13 Before the contract -- and I'll put up the tow contract and
14 mark the date, October 4th.

15 Before October 4th, did you have any familiarity with the
16 70?

17 A. Yes.

18 Q. Okay. What was that? Why?

19 A. We'd been moving it around the yard. The Emerald Sea, I
20 was a tow master for Western Towboat, and Vigor had a couple
21 heavy-lift ships come in and take down the Emerald Sea down to
22 Mexico before all this happened. So once the Emerald Sea left,
23 we were moving the 70 around in the shipyard there to a
24 different berth to get it ready for -- I don't even remember
25 why. There was a week were, I remember, we were juggling dry

1 dock pieces all over the shipyard.

2 Q. So were you involved in the discussion to use a heavy-lift
3 ship to transport the 70?

4 A. I remember there being talk of it. When we were doing the
5 Emerald Sea, there was talk that they may put it on a heavy-lift
6 ship, but it was just kind of, you know, in passing.

7 Q. Were you aware of the proposal -- not just the heavy-lift
8 ship -- transporting the dock in three pieces aboard the
9 heavy-lift?

10 A. No, I never heard that.

11 Q. Well, did you have any understanding of how they were going
12 to do that without breaking it into three pieces?

13 A. Well, the Emerald Sea was a large dock, and what they did
14 when they loaded it on the heavy-lift ship -- the ship is
15 square, if you will, and they canted it at a 45 on the deck,
16 because of the length. So it was overhanging the sides of the
17 ship, and then it welded to the deck of the heavy-lift ship. So
18 I assume that's how they would do it.

19 Q. Did Western assist putting the Emerald Sea on the
20 heavy-lift ship?

21 A. We did, yeah.

22 Q. What -- in advance of signing this contract -- if any,
23 discussions did you have with Dan Keen, with Paul Torrey about
24 moving the dock, the 70, in one piece to Ensenada?

25 A. I remember Dan asking if we'd be interested in giving him a

1 quote to tow it to Mexico, and I said, "Yeah, I think we can do
2 that." At the time, I wasn't doing quotes, so I had mentioned
3 it to my dad, and he said he would work up the numbers for it.

4 Q. Did Dan say anything about the capability, suitability of
5 the 70 being towed to Ensenada?

6 A. The only thing that was mentioned was that he was working
7 on the -- when we decided that we were going to tow it, he had
8 someone do an engineering for the tow pads. Vigor was going to
9 be in charge of rigging the tow gear, and they had an engineer
10 calculate everything. And all we needed to provide was our tug
11 and then a shot of chain to marry in to their tow jewelry.

12 Q. Okay. So did you learn that Vigor would be installing new
13 tow connections before the contract, or after?

14 A. I believe this was -- it would have been -- I don't
15 remember offhand. I think it was after, most likely.

16 Q. Okay.

17 And do you and Dan, in the course of your relationship --
18 do you still work with Dan at the Vigor?

19 A. Yeah. From time to time, I get to be on my floating
20 office.

21 Q. Was it your habit to talk with him about the weather and
22 the weather expected in connection with that work?

23 A. Yes.

24 Q. Okay.

25 So you turned the contracting over to your dad, and we've

1 seen how we got here.

2 So after the contract was signed -- oh, before I go there:

3 So as you were transporting the 70 down around at the Vigor
4 yard or Todd Shipyard -- let's talk about Vigor yard in 2015.

5 Did you ever any see repairs being done on the 70?

6 A. No.

7 Q. What was going on with the 70 during, let's say, the year
8 before -- two years before?

9 MR. JARRETT: Objection; no foundation for that for
10 witness's testimony about...

11 THE COURT: Hang on.

12 The objection will be sustained.

13 Ask your next question.

14 Q. (By Mr. Simms) So let's go back a year before the tow.
15 All right? Were you familiar with the 70?

16 A. Yes.

17 Q. Did you see it on a regular basis?

18 A. Yes.

19 Q. And so did you move it around before this tow we're going
20 to talk about?

21 A. Many times.

22 Q. And when you did that, when you saw it, did you ever see
23 anybody working on the 70 to make repairs, improvements?

24 A. No.

25 Q. Okay. All right.

1 And did you ever get a call from Vigor -- did Western ever
2 get a call from Vigor saying, Hey, we'd like you to come over
3 here and help us move the dock so we can make some repairs?

4 A. No.

5 Q. All right. So we've got the contract here, and between the
6 time of this contract and the time the tow departed, did you
7 ever come to Vigor Shipyard?

8 A. Yes.

9 Q. Okay. This is between October 4th and the 17th. Okay.
10 All right.

11 How regularly, if at all?

12 A. I can't recall, but I would be -- I know I went there -- I
13 sailed the tow the day it left. I was running the harbor tug of
14 ours. And then -- I can't remember what day it was, but I know
15 shortly, like a month or -- I can't remember when, but the dock
16 almost blew off the dock there in a wind storm. I remember
17 pushing on it. I think it was that section. I can't -- it was
18 early October. That might have been before.

19 Q. Okay. Okay.

20 So -- and during that time, did you see any repairs being
21 done on the 70?

22 A. No.

23 Q. So the contract comes in, and then tell the court what
24 happened after that.

25 A. Remember talking with Rich Shaw. He set up, I believe, him

1 and Jeff -- or him to meet Jeff to survey the Ocean Ranger to
2 make sure it was suitable for the tow.

3 And then Rich and I and Dan were all talking about we
4 were -- we were going back and forth about when everybody was
5 going to leave. Rich -- I ended up getting the draft -- I can't
6 remember if Rich sent it to me or if Jeff did, but the survey --

7 Q. Let me put up, the draft tow plan.

8 Was this the draft tow plan?

9 A. Yes.

10 Q. And it's hard to read the overlay here, so I'll go through
11 a few pages.

12 But did you get a draft that said, "Draft, do not
13 disseminate. Not to be considered all inclusive"?

14 A. I believe the one I'd received, yes.

15 Q. "Do not disseminate. Not to be considered all inclusive."

16 A. Yes. I remember I needed something, because I was going to
17 submit our tow plan, and this had to go with it to the United
18 States Coast Guard for Waterways Sector Puget Sound for the
19 voyage.

20 Q. And I'll down to the bottom here. There's a date, October
21 6, two days after the contract date. Is this when you got the
22 draft survey from Rich Shaw?

23 A. It would have been right around there when I sent it to the
24 Coast Guard, because, generally, when you send a plan to the
25 Coast Guard, if you want it done overnight, you're dreaming. It

1 takes about week or two to get it approved.

2 MR. SIMMS: And in the record already entered, Your
3 Honor, we have the tow plan, we have the Coast Guard approval,
4 and all that.

5 MR. JARRETT: Your Honor, we don't have that in the
6 record.

7 MR. SIMMS: We do.

8 MR. JARRETT: The Coast Guard approval tow plan, Your
9 Honor --

10 MR. SIMMS: Yes, we do.

11 MR. JARRETT: But I only wanted to make that objection
12 for the record. I don't mean to interfere with counsel's
13 direct.

14 THE COURT: All right.

15 Q. (By Mr. Simms) So did you have any conversations with Rich
16 Shaw about this tow and the survey?

17 A. I did.

18 Q. So tell the court everything you remember, from the
19 earliest to the time of the tow's departure, of the
20 conversations you had with Rich Shaw about this draft survey.

21 A. I've known Rich from our Cal Maritime alumni dinners and
22 everything, and he called me up and said, "Hey, I'm doing this
23 survey for this tow to Ensenada with the dry dock," and he goes,
24 "What tug are you going to use?" And I said, "Oh, the *Ocean*
25 *Ranger*," and that when I set him up -- I said, "I'll get you

1 Jeff's number so you can come down to the yard and do your
2 survey," which is pretty standard. This is, you know, before
3 the tow, you know, he has to approve the tug. And he said -- we
4 were talking about weather, and I said, "Yeah" -- he mentioned,
5 he goes, "Well, 15 feet," and I said, "Yeah, okay, 15 feet," I
6 go, you know, "That's going to be what it's going to be." We
7 were just kind of -- you know, we were interchanging stuff
8 quickly. And he said, "Okay, well, we'll get the tug done."
9 And then I was waiting, and I said, "Well, when I get the
10 survey, I'll send it all to the Coast Guard, and we'll get our
11 tow plan submitted, we can get going with this thing."

12 Q. Okay. So that was the first conversation. Was that a
13 conversation with Rick Shaw in person, over the phone?

14 A. That would have been over the phone.

15 Q. Okay.

16 And so was that the first part of October, after the
17 contract was signed?

18 A. Yes.

19 Q. Okay.

20 And so then did you have any more conversations with Rich
21 Shaw after this first conversation?

22 A. There was the -- well, when we were all -- we had that
23 storm come up, and everybody was getting ready to go with this
24 dock. And I remember we were all watching the weather. We were
25 waiting to go with this thing, and then there was that storm.

1 And we'd all been talking -- Rich, Dan, my dad.

2 My dad was, kind of, more doing the weather side of things
3 for Western Towboat. I was more of the liaison between Rich and
4 Dan because of my connection with both of them, day-to-day
5 working.

6 And we all kind of -- I said, "Hey" -- and we'd all been
7 watching the weather. I said, "We're thinking we should all
8 leave on Monday, the 17th," and I called Rich, and he said yes,
9 and Dan said, "Okay, we'll all get going on the 17th. It looks
10 good."

11 And so we -- this probably on a -- I think it was a
12 Saturday or a Sunday we decided that. Then we got the crew up
13 and we got the tug crewed up in the morning, and we departed on
14 that Monday.

15 Q. Did Rich ever talk with you about the recommendations in
16 the draft tow plan?

17 A. No, other than he told me that he felt the tow was good to
18 go and everything looks good. That's basically what he said.
19 He said, "This thing is Navy-built. It's tough."

20 Q. He said, "This thing is Navy-built. It's tough." Did he
21 tell you that?

22 A. Something to that effect, I believe, yes.

23 Q. Okay. When did he tell you that?

24 A. That would have been -- oh, after -- in that first phone
25 call.

1 Q. And so how many conversations did you have with Rich Shaw
2 after the first phone call before the --

3 A. Oh, there probably would have been a few in between.

4 Q. More than five, less than five?

5 A. I want to say that phone call was a few days after he
6 surveyed the *Ocean Ranger*, because he called to tell me how nice
7 of a boat it was.

8 Q. Okay. Okay.

9 And did you see him in person at any time?

10 A. I think I saw him in the yard the day it was leaving
11 from -- or maybe showing up for the survey. I can't remember,
12 to be honest.

13 Q. Okay.

14 Now, let's focus on your conversations with Dan Keen after
15 this contract. Tell us the earliest one, and let's run through
16 the time the tow left.

17 A. I think I had just been talking to Dan. From what I
18 remember, we would have been talking shipyard stuff, like moving
19 stuff around. I remember Dan telling me that -- you know, they
20 had -- I said, "Well, how are we going to tow this thing?" He
21 said, "Well, I've got the engineers, and we're going to have
22 these two pendant wires that run to some bits on the dock, and
23 the engineering has been done for the strength of all this, and
24 then we have the tow jewelry/surge chain put together." And
25 then we were talking about how we were going to hook up the tow.

1 So the way the tow was hooked up is, Dan was going to crane
2 the pigtail, which is -- you have a tow bridle chain, then
3 there's kind of a long piece -- it looks like peace sign, right?
4 And then he craned that piece onto the tug, and I got onto our
5 tug, if I remember right, and helped hook up our chain to it.
6 And then we, basically, just pulled the tow off the dock with
7 the two tugs laterally, and off we went.

8 But most of the conversation was about tow prep. Like, Dan
9 was getting an emergency towline, and he asked what size rope
10 and -- I can't remember if he was looking for a buoy or
11 something, maybe, for the trailing line, and I had to get him
12 one or something. I can't remember offhand.

13 Q. Did Vigor install new tow connections to the 70?

14 A. Yes. I believe he installed new pad eyes, and he sourced
15 all the rigging gear.

16 Q. And did you send that configuration to the Coast Guard as
17 part of the tow plan approval?

18 A. I did, because Dan had sent me the configuration that he
19 had. So it was the tow plan, Rick Shaw's draft, which is on the
20 screen, and then there was the engineer's drawing of the towing
21 connection of the YFD 70, or whatever it was, the dry dock.

22 Q. Did Dan design the new pad eyes, the connection?

23 A. I don't know. I'd assume. He said an engineer did it.

24 Q. So describe to the court where that was located on the 70.

25 A. There was two pad eyes that were about 40 or 50 back on the

1 pontoon -- on the deck of the dry dock. And then there was two
2 pennant wires that came out to chocks, close chocks on the
3 front, and then the chain went through the chocks and connected
4 to these pendant wires, if I remember correctly.

5 Q. Were the pad eyes on what we now know is the center section
6 of the dock?

7 A. Yeah.

8 Q. So did that have the towing connection coming over what we
9 understand is the end section of the dock?

10 A. That's correct.

11 Q. Did you hear the testimony about the bolts that held the
12 end section on?

13 A. I did.

14 Q. If you had known that the only thing holding that end
15 section on were those bolts, would you have made the tow in that
16 configuration?

17 A. No.

18 Q. Why?

19 MR. JARRETT: Objection, Your Honor; lack of
20 foundation and lack of expertise to make any judgment like that.

21 THE COURT: Sustained.

22 Q. (By Mr. Simms) All right. Let's go back.

23 Did you hear the testimony from Dan that there were 40 --
24 whatever the number of bolts were -- holding the end sections on
25 to the 70?

1 MR. JARRETT: Objection, Your Honor; mischaracterizes
2 the testimony. There wasn't 40 anything.

3 MR. SIMMS: Bolts.

4 THE COURT: It does mischaracterize the testimony.
5 Rephrase your question.

6 MR. SIMMS: All right.

7 Q. (By Mr. Simms) Did you hear the testimony from Dan Keen
8 that bolts held on the end sections of the 70?

9 A. Yes, I did.

10 Q. All right. What did you hear?

11 A. I heard that it was bolted together on each of the wing
12 walls, and then there was something about it being hard to get
13 to the one bolt, there was 18 inches around it, or something
14 like that, and they were two- or four-inch bolts, or something
15 like that.

16 Q. Okay. So this is just from your experience. So tell us
17 your experience again, your background, starting from Cal
18 Maritime, to your towing and all that, because I'm going to ask
19 you about your response to the bolts.

20 MR. JARRETT: Is there a question?

21 MR. SIMMS: There is. We have a question about
22 whether he's qualified to respond on the question of the bolts.

23 Q. (By Mr. Simms) And so I want you to go into everything
24 that you think might help you know about bolts and towing.

25 MR. JARRETT: Your Honor, object to the foundation and

1 the characterization of the testimony by both Mr. Simms and by
2 the witness.

3 THE COURT: Counsel, the court has heard the
4 testimony.

5 Mr. Simms, I'm not quite sure where you're going with this.

6 MR. SIMMS: Sure. Where I'm going, Your Honor, is, we
7 have a design that connects to the center of the tow, and lops a
8 tow wire over a set of bolts so that when we have the connection
9 here and the end section here, we have a wire that's going like
10 this that would tend to bend and stress those bolts. And it's
11 important to him to know that it's not a continuous section;
12 that, in fact, it's bolted. Makes a big difference.

13 MR. JARRETT: Your Honor, I object to this testimony
14 because, again, Mr. Shrewsbury is a towboat captain. He is not
15 a marine engineer and has not reviewed the design of the vessel
16 beyond the testimony, which he described inaccurately already
17 this morning. So there is no foundation for this testimony.

18 THE COURT: The objection will be sustained.

19 Q. (By Mr. Simms) Have you, Mr. Shrewsbury, ever towed, or
20 has Western -- well, let's start with you.

21 Have you ever towed any vessel connected with bolts?

22 A. Flexsi Floats.

23 Q. What is a Flexsi Float?

24 A. It is a series of pontoons that are sometimes held together
25 with, like, rods, or you can bolt them together.

1 And I also moved a few derrick barges that had pontoon
2 sections on the side that slide into, like, a notch, and then
3 they have a cover plate that's bolted down.

4 Q. Is it important for you to know, when you are considering a
5 tow, whether the vessel -- dry dock is not a vessel -- whether
6 what you're towing is held together with bolts; is that
7 important for you to know?

8 A. Yes.

9 Q. Why?

10 A. Its strength.

11 Q. Go into that.

12 MR. JARRETT: Objection, Your Honor. Again, the
13 witness is not a marine engineer. Bolts hold together many
14 things in the world, Your Honor, including many different types
15 of vessels.

16 THE COURT: The objection will be overruled. The
17 court can put whatever weight on his testimony it feels
18 appropriate.

19 Q. (By Mr. Simms) And if you had known that the 70 was bolted
20 together, would you have towed it?

21 A. No.

22 Q. Would you consider that a special circumstance?

23 A. I do. The reason -- if you want my reasoning for it, I'll
24 give it to you.

25 For instance, Manson Construction has a derrick barge

1 called the Derrick 24. When they tow that barge out in the
2 ocean -- the Derrick 24 has pontoons on either side of it to
3 give it stability. When they're making critical lifts, it gives
4 a little more buoyancy.

5 When the Derrick is being towed anywhere out in the ocean,
6 they take the pontoons off and stack them on the deck, and lash
7 them.

8 Q. And if you had known that the original design of the 70 was
9 to have the tow done in three pieces, with the end sections
10 loaded on the center -- if you had known that and, instead, been
11 presented only with a one-piece tow, would you have made the
12 tow?

13 A. No.

14 Q. Why?

15 A. Well, it's pretty simple.

16 When we're going to tow something in the ocean -- if this
17 phone is the barge, or the whatever, the stresses -- if you
18 twist, like, a piece of cardboard that's long and skinny, it's
19 easier to twist. The shorter you get it, the more rigid it is,
20 the more stable and stronger.

21 So if you have something that's 70 years old, and you can
22 make it shorter and compact, with less longitudinal twisting --
23 from my ship structure and stuff I did at Cal Maritime -- it's
24 going to be stronger the shorter it is. And that's why I
25 wouldn't.

1 Q. Okay.

2 So when you were talking with Rich Shaw, did Rick Shaw
3 mention anything about a ten-foot wave restriction?

4 A. No.

5 Q. All right.

6 Now, if he had -- if he said, "Now, Russ, I want you to
7 know that this is really important. You cannot take this thing
8 out on over ten feet -- maximum ten-foot waves, cannot take it
9 out," how would you respond, if you did respond?

10 A. I would have told him that was not feasibly possible.

11 Q. Would you have done the tow --

12 A. No.

13 Q. -- if that was a restriction?

14 A. Yeah, we wouldn't have been able to do the tow. It you
15 can't tow something in the ocean and expect only ten-foot seas.

16 Q. Did Rich Shaw tell you there were restrictions on this tow?

17 A. He did not.

18 Q. Did he ever give you instructions, commands, orders about
19 how the tow must be done?

20 A. No.

21 Q. Did he ever talk about wind to you?

22 A. No.

23 Q. Wind recommendations or restrictions?

24 A. No.

25 Q. And to make clear, we've got the draft survey up. Did

1 Western, before the tow departed, ever receive the final survey?

2 A. I never saw it. I never saw the final survey until these
3 proceedings.

4 Q. Okay. All right. So lots of conversations with Rick Shaw.
5 Now we're going to talk about the conversations with Dan Keen.

6 Tell us the earliest conversation -- you did -- about the
7 tow connections.

8 What were other, if any, conversations you had with Dan
9 Keen before the tow departed?

10 A. I mean, it just would have been the rigging and then when
11 we were going to go, looking at the weather and all that.

12 Q. Were you talking to Dan Keen about the weather in
13 connection with the departure of the tow?

14 A. I believe I would have, because we were all trying to
15 figure out when we were going to leave with the tow.

16 Q. All right.

17 So let's talk about now what you use to know what the
18 weather is. Okay?

19 Q. Do you use your cell phone.

20 A. I use my phone all the time.

21 Q. Take it out, and let's see. What do you do? You've got it
22 right there.

23 A. The first one I use is the Washington Marine Forecast,
24 which shows you by zone. Like right now, if I want to look at
25 the coastal waters for Washington, I can look from Cape Flattery

1 to James Island, ten nautical miles out. I can look from Cape
2 Flattery to Point Granville, 60 miles out, and I have all the
3 different forecasts.

4 I can look at WindyTY. I have Marine Weather app. I have
5 the NOAA weather buoys as a bookmark on my phone. So we look at
6 all these different tools.

7 Q. You talk about the Wash U. Is that the NOAA forecast?

8 A. It's the NOAA forecast that the University of Washington
9 puts out for all Washington State.

10 Q. And does that forecast including Cape Flattery and south?

11 A. Yeah, all the way to the Columbia River, and it gives you
12 bar conditions as well.

13 Q. Okay.

14 When you were talking with Dan about the weather for tow
15 departure, do you have any idea what he was using?

16 A. I would assume probably the NOAA forecast. I know Dan has
17 a --

18 MR. JARRETT: Objection, Your Honor; move to strike.
19 The witness's speculation is not relevant.

20 THE COURT: That will be sustained.

21 Q. (By Mr. Simms) Okay.

22 So you were about to say that you know Dan has "a." How
23 did you know that Dan has "a," and what do you understand that
24 he has?

25 A. In the past, when we've done moves at Vigor Shipyard, he's

1 sent me emails with a wind forecast hour by hour with, like, a
2 bar graph. I don't know what program it is, but -- and he would
3 say, "Hey, it doesn't look good for Thursday. This is what the
4 wind is supposed to do, but after four o'clock it looks like
5 it's going to be doable."

6 Q. All right.

7 So did you have conversations with Dan about the tow plan?

8 A. I don't remember ever really having any conversation, other
9 than I believe I sent it to him. He might have been linked in
10 when I sent it to the Coast Guard, because Vigor would have
11 wanted to know -- he was -- I didn't know Paul Torrey at the
12 time, but I believe I would have included Dan in that email,
13 just because he would tell Vigor that they're good to go. He
14 would be the liaison, I guess, to his people, to know that, you
15 know, it was cleared by the Coast Guard.

16 Q. Uh-huh. Okay.

17 I'm looking for our emails. Okay, here. Let's look at 19.
18 I'll start at the bottom. This is Exhibit 19.

19 Okay. So October 7, and this is three days past the
20 contract; so October 4, contract; October 6, draft survey; and
21 this is October 7. Who is Jeffrey Zappen?

22 A. Jeffrey, at the time, he was the Sector Waterways Seattle
23 commander. I think he was, kind of, the head guy of the
24 Waterways management there that, basically, approves or
25 disapproves tow plans, if I remember correct.

1 Q. So down here, this is the 7th.

2 So did you email the tow plan to the Coast Guard?

3 A. Yes, I would have.

4 Q. Okay. And was part of what you email to the Coast Guard
5 this chart, which showed the route for the tow?

6 A. Yeah.

7 Q. Okay.

8 So did the -- let's go up here. And what's this, by the
9 way? Oh, sorry. That's a chart. But up at the top, what's
10 that?

11 A. What that is is your waypoints. So on the chart below,
12 this is starting at Waypoint 1, which would be probably -- I
13 don't know, maybe Cape Flattery. But that's each individual
14 coordinates of the waypoints. And the course that you're going
15 to -- your next waypoint, that's your true course to that. They
16 call that point-to-point navigation. So you're just plopping
17 down points, and running like an Etch-a-Sketch to each one for
18 your route.

19 Q. And does that show the Coast Guard the exact waypoints that
20 Western intended the tug and tow to follow?

21 A. Yeah. It's more general, because, you know, if you have
22 traffic or something, you'll be deviating from that a little
23 bit. But it's showing them the general course that we're going
24 to be taking.

25 Q. Okay.

1 And was that course through the Monterey Marine Sanctuary?

2 A. I'd have to take a closer look. I don't know.

3 Q. Look at the chart right here. You can't really see it.

4 A. I think it's outside of it, if you plotted it.

5 Q. So we have exact waypoints. So let me go back to the
6 email, and so the attachment was the tow plan.

7 Did the Coast Guard ever see the amendment to the tow plan?
8 Did you ever send that to them?

9 A. I don't know. I might have. I think I did.

10 Q. Uh-huh. Okay.

11 A. For Jeff or something. I...

12 Q. All right.

13 So this is intended distance from shore. He's asking you
14 to provide that. And then you sent this. You're planning on
15 staying 20 nautical miles offshore.

16 A. The reason for that is -- I remember this -- because the
17 Coast Guard, they want to notify each sector when you're passing
18 through their zone. If you're on an exemption -- you know,
19 like, you didn't have a load line. So that way each port zone
20 knows what we're doing in it. Even if we have a tow exemption,
21 they have to notify everybody on your way down the coast.

22 Q. And your understanding is that's standard Coast Guard
23 practice?

24 A. Yes. You should see, like, a COPT, or captain of the port
25 or something.

1 Q. Okay. All right.

2 So you provide that, and then after you provided this to
3 Lieutenant Zappen, did the Coast Guard -- this is on the 7th --
4 confirm that it has no objections to the tow plan?

5 A. Yeah.

6 Q. Okay.

7 All right. Now, after this, to the time the tow departed,
8 did you have any further conversation with the Coast Guard?

9 A. I can't recall. It may have been the amendment later on,
10 or something like that.

11 Q. Did you have any discussions with Dan Keen about the tow
12 plan?

13 A. Not offhand, I don't think. It was more like a -- I think
14 I remember we -- talking about Western Towboat would supply the
15 lights, because we have those nice, magnetic solar ones and help
16 Vigor out with them.

17 Q. And so let's go forward here.

18 We're at the 7th. What other, if any, conversations did
19 you have with Dan Keen about the tow?

20 A. I guess just making sure it was ready to go and everything
21 was squared away.

22 Q. What did he tell you? What did you tell him?

23 A. I think I told him that, you know, we need to make sure
24 that all the connections are right and everything is sealed up.
25 And he had told me that Global had done all the work diving on

1 it and sealing all the cofferdams and everything up, and the
2 inlets and outlets.

3 So I said, "All right. Go home."

4 You know, we were working with Rich and, supposedly,
5 everything was good to go.

6 Q. Okay.

7 So then you get up to the time of departure, that weekend.
8 Was there a big storm that weekend?

9 A. Yeah. I remember talking to my dad. I would have been
10 running boat, I'm sure, but I remember there being a storm and
11 that's why we were delayed and we couldn't go.

12 Q. All right.

13 So were you talking with Dan over that weekend about the
14 time of departure?

15 A. I'm sure I would have been, yeah. When we saw that break
16 in the weather window, we all would have been talking about,
17 okay, it's go time.

18 Q. And did Dan agree it's go time?

19 A. Yeah. Everybody agreed.

20 Q. And you talked with Dan about that?

21 A. And Rich.

22 Q. And Rich Courtney?

23 A. Shaw.

24 Q. Rich Shaw. Yeah. Okay.

25 So now it's the 17th. It's time to go. And describe that

1 day. Were you at the shipyard that morning?

2 A. Yeah. I was running the west track.

3 Q. What exactly is that? What exactly were you doing that
4 morning?

5 A. I was there. First, we got -- put all our harbor people on
6 the tow; start rigging all the lights; making sure the emergency
7 towline, everything is ready to go; checking everything. And I
8 drove around the tow, and, you know, take a last look, make sure
9 we're not missing anything.

10 And then I pulled up next to the *Ocean Ranger*, if I
11 remember right. I remember helping them hook up the tow with my
12 mate. We tied alongside them as Dan had the shipyard crane
13 lower that chain down and help the crew make the connection and
14 everything, make sure everything was good to go.

15 Q. Okay.

16 So were there any discussions, then, that morning about the
17 weather?

18 A. No. It was gray day, and everybody was happy, and we got
19 underway right around noon or something.

20 Q. Okay. Was Dan there near the site?

21 A. Dan was on the pier, yeah.

22 Q. Was Rich Shaw around?

23 A. No.

24 Q. And so we're going to finish up the conversation with Rich
25 Shaw for now.

1 Did Rich Shaw ever talk to you about the final survey?

2 A. No.

3 Q. Okay.

4 Now, I want you to put the court on the bridge of the tug.
5 Steve McGavock, he is connected. We've seen the picture of the
6 YFD 70 going out. What do you see? If you're at the helm, what
7 do you see?

8 A. You have all your controls for -- you have your radar
9 screens. And then behind him, he's going to have one computer
10 for navigation, he's going to have a laptop that's connected to
11 the satellite Internet --

12 Q. And when you say "behind him" -- I want to make sure
13 there's foundation.

14 Are you familiar with the bridge and configuration of the
15 *Ocean Ranger* on October 17, 2016?

16 A. I am.

17 Q. All right.

18 So when you say "behind," where behind? Let's put it in
19 reference to the court. Does the master sit in a chair, or does
20 the master stand?

21 A. There is a chair on that boat in the middle, I believe.
22 The wheelhouse on that boat is kind of funky. The front windows
23 are about here. The back of the wheelhouse is about where your
24 wall is here. So everything is close. And you have two driving
25 stations. You have one on the port, one on the starboard. Then

1 in the center is a compass and an autopilot. And then you turn
2 around, and behind you is your computer screen with the
3 electronic chart. And then you have your chart table on that
4 boat. It's on the port side. And the computer screen is right
5 next to it. And you have a laptop that we do the ship's
6 business, email. We keep that separate, normally, from the
7 navigation computer so you don't get a virus or something if
8 you're using the Internet.

9 And then on that boat, it has a weather fax, and I think
10 that boat also has another chart plot -- I don't remember if it
11 has --

12 Q. What's weather fax? Is that like the thing in -- it's
13 terrible -- the -- the fishing boat that went under, the movie?
14 You know -- you see that? What is a weather fax?

15 A. A weather fax is a fax machine that will print out the NOAA
16 forecast and weather maps in black and white.

17 So you get a general area where you get -- it shows you the
18 high- and low-pressure systems; basically, all the weather maps.
19 And it comes through every six hours, I believe.

20 Q. Uh-huh. Okay.

21 So the computers, the navigation system, what does that
22 navigation system look like? If you're, again, looking -- so
23 Judge Martinez would be looking over what shoulder to see the
24 navigation system?

25 A. On that boat, it would be to the left. It depends on where

1 you're standing. If you're standing in the wheelhouse, it's
2 over your left shoulder. And it's a real-time display of a
3 chart. So when you zoom in, it changes the chart automatically
4 to a higher aspect. And it will show you pinpoint where your
5 boat is, the heading line, how far you're going to go in ten
6 minutes, or however far the captain has it set, it will give you
7 what is called dead reckoning.

8 It will plot your position and move it along the chart as
9 the boat moves via GPS. It has two different inputs. It has an
10 input from the boat's GPS system, but the boat also has an
11 automatic identification system, AIS, which is a satellite GPS
12 that tracks the boat, as well. So you have redundancy in inputs
13 into where the boat's location is.

14 Most of the guys use the charting program as the main
15 navigation. The days of paper plotting have gone by the wayside
16 after 2010, something like that.

17 That boat may -- I can't remember if it had a Garmin GPS
18 chart plotter as well, like you would see on a sport fishing
19 boat or something. I think it has one. It's about the size of
20 a notebook.

21 Q. So to the left of you, there is a chart that's up. If
22 you're looking at the navigation system, would it look like that
23 chart, or something different?

24 A. It would look just like that chart. But the nice thing
25 about the plotting system is you can zoom in or out. The boat

1 will stay where it is. So if you're going into, say -- if I was
2 going to sail up the Duwamish River, I would zoom in on that
3 chart, and it would give me more information as far as depths.
4 But when it's a small aspect like that, you only get a depth
5 every so often, but the farther in you go, the more depths you
6 get.

7 Q. And you've heard lots of testimony about marine
8 sanctuaries. Do the charts that display show those blue lines
9 that designate the marine sanctuary?

10 A. It should, yeah.

11 Q. But does it?

12 A. On a roster, yeah, it would.

13 Q. Okay. So we talked about the weather fax.

14 Now, would the tug master -- you're a tug master. Do you
15 use your cell phone to get weather?

16 A. Predominantly, yes.

17 Q. And do you have an understanding of what Captain McGavock
18 was using as he departed Seattle?

19 A. Well, he would have been using his phone. When we go down
20 the coast, we have cell service pretty much all the way down the
21 coast of Washington.

22 Q. So what do you understand he had on his phone?

23 MR. JARRETT: Your Honor, we heard extensive testimony
24 from Captain McGavock about what he did, what he had, what he
25 used. This witness's rehash of that testimony is not relevant

1 nor helpful.

2 THE COURT: I agree. Let's move on.

3 MR. SIMMS: Okay.

4 Q. (By Mr. Simms) Now, you described what the tug has. In
5 your experience, does the tug have more available to it or at
6 least as much as a weather forecaster would?

7 A. Yes.

8 Q. Now let's go to the office. Okay?

9 Was your dad monitoring the weather conditions?

10 MR. JARRETT: Objection, Your Honor; lack of
11 foundation.

12 Q. (By Mr. Simms) Do you have an understanding about whether
13 your dad was also monitoring the weather conditions from the
14 office?

15 MR. JARRETT: Same objection, Your Honor.

16 THE COURT: Counsel, his dad was on the stand. We
17 have all that testimony in.

18 MR. SIMMS: Okay. All right.

19 Q. (By Mr. Simms) So it is time to depart. Did anyone
20 express any concerns about the weather at the time of departure?

21 A. No.

22 Q. So let's go out the next day, the 18th.

23 Okay. Were you getting reports from the tug?

24 A. We sent a daily report. I think on that trip we may have
25 been sending two. It just depends. Sometimes -- they're

1 usually on the sixes. So 6:00 in the morning, 6:00 at night or
2 the 7s, 7 --

3 Q. Who did you send that daily report to?

4 A. I believe -- well, it would have been going to Dan and
5 Richard Shaw, and then it goes to a boilerplate email. It's an
6 ETA. You know, our company gets one email that gets spit out to
7 everybody at Western Towboat that receives those in the office.
8 And then I would have -- if I got the morning report and didn't
9 see the other people forwarded on it, I would have contacted the
10 tug and said, "Add this person," or just forwarded it to myself
11 to whoever needed it.

12 Q. So the people receiving the report, did that include Dan
13 Keen?

14 A. It would have, yes.

15 Q. Did the report include a report of weather conditions?

16 A. Our morning reports usually have a position, weather, ETA,
17 miles traveled. Sometimes we have fuel in there, once in a
18 while.

19 Q. Now, you mentioned a transponder. What is the importance
20 of that?

21 A. AIS is a tool that we use now. Well, one, the Coast Guard
22 can track your location with it; two, we use it to identify
23 other ships. So it was foggy or something like that, and I was
24 leaving the Puget Sound and there was a ship coming behind me
25 that I needed to get ahold of to make passing arrangements, it

1 will show me on that ship the chart in relation to my vessel,
2 and I can safely make arrangements with him.

3 It's a pretty handy tool because the computers now -- if
4 you're in a crossing situation, it will show you exactly where
5 you'll meet these people, how long it will be until you meet
6 them. It's made what we do a lot safer. And I get to track
7 where all our boats from the office to make sure they're going
8 in the right direction.

9 Q. So this is a free, available program that shows where the
10 *Ocean Ranger* was on the 24th. And I've got a -- I'm not
11 connecting to the satellite function, but there is a satellite
12 function that you can use. Do you ever use this, the marine
13 traffic?

14 A. Daily.

15 MR. JARRETT: Objection, Your Honor. This is
16 irrelevant, again. And for the further reason, that the court
17 has already found -- I think where we're going here -- the
18 relevance to the sanctuary. That portion of the case is already
19 decided. Western's transit into the marine sanctuary has been
20 decided already.

21 MR. SIMMS: That's not where I'm going.

22 THE COURT: Where are we going?

23 MR. SIMMS: I'm going to knowledge of the position of
24 the tug at the time of the encounter of weather that has been
25 claimed to be beyond the tow recommendations.

1 THE COURT: All right. Can we get there?

2 MR. SIMMS: We're getting there, yes.

3 Q. (By Mr. Simms) So was Rich Shaw getting reports of where
4 the tug was and the weather conditions?

5 A. He would have, yes.

6 Q. Now, after the tug left, did you have any conversations,
7 before the report of the list, with Dan Keen about the tow?

8 A. I may have, in passing, with Dan. I can't remember.

9 Q. Okay. Dan didn't mention anything along the lines of,
10 "Hey, is there something wrong? You guys are coming up to bad
11 weather." Anything like that?

12 A. No.

13 Q. How about Rich Shaw?

14 A. I think I remember Rich calling and going, "Hey, Cap, I see
15 them going," and me saying, "Yeah," and I say, "Everything is
16 good."

17 Q. So this transponder showed that -- if somebody wanted to
18 see where the tug was, they could see?

19 A. Yes.

20 Q. Okay.

21 And did you ever get any calls from Rich or Dan, at any
22 time, saying, Hey, outside the weather recommendations, outside
23 your tow plan, there's a problem, too rough, you're going to
24 have a problem, anything like that?

25 A. No.

1 Q. Okay. And let me blow that up.

2 Did you ever hear any calls like that to any -- hear about
3 any to Captain McGavock, to your dad, to Jeff Slesinger,
4 anything?

5 A. I did not.

6 Q. You didn't hear it?

7 Now, did you communicate with the tug, with Captain
8 McGavock, as the tug continued town towards Point Reyes?

9 A. I did talk to Steve, like, a day or so out, because I was
10 curious how that thing was going to tow. You know, it's pretty
11 big. He said it was following great, and that was it. Well, to
12 Point Reyes. I think I just talked to him that first day. Once
13 he was out in the ocean, we were watching him. It looked like
14 he was making decent speed.

15 Q. So you didn't hear of any problems?

16 A. No.

17 Q. And if there was a problem, would you hear of it?

18 A. Yeah. He'd call us.

19 Q. Okay. So now we're up to the 28th. Okay. And what was
20 the first -- well, let me just back up.

21 Did you hear that the tow had experienced a list?

22 A. Yeah. I believe my -- I can't remember if it was Steve or
23 my dad called me around 4:00. I think it was my dad.

24 Q. Okay.

25 And what, from that, did you understand, to start with,

1 about the list?

2 A. I remember the first call was, "Well, we think" -- I
3 remember him saying, "Well, we think we've got a list. We're
4 not sure." And I believe my dad had told me -- he said, "Well,
5 we're going to watch it and give it a little bit, and then
6 they're going to call us back and let us know if that's what's
7 actually going on."

8 Q. Okay. Tell the court, then, what time of the day was this
9 that you first heard about the list?

10 A. It was somewhere around four o'clock. I think I was
11 Downtown. I was just finishing the day or -- I think I was
12 driving or something.

13 Q. All right.

14 So tell the court now the next conversation -- what, if
15 anything, did you do next after you heard that?

16 A. Well, we were just kind of waiting to hear from the tug.
17 The initial was, "Yeah, we think we have a list," and then, "We
18 were going to watch it for an hour or two," because it was hard
19 for them to tell, going through the swells. But then, "Well,
20 maybe we do have a little water in there or something," because,
21 you know, if it was just a slow leak of a hatch or something,
22 who knows.

23 And then I think it was 6:30 or something like that, and I
24 got the next call, and that was, "Yeah, there is a list, and
25 it's gotten a little bit worse."

1 Q. Okay. All right. So who gave you that call?

2 A. That would have been my dad.

3 Q. All right.

4 And so then did you have any conversations after that with
5 Dan Keen?

6 A. Yeah. I called Dan. I was at dinner, and I remember --
7 well, first, I think, I called Stephen, actually, myself, on the
8 sat phone. I remember it was kind of crummy service, and I
9 remember talking to him. Because I wanted to give Dan the
10 information as best I could, and Stephen said, "Yeah, I think
11 we're down by, like, three feet, or something like that." Then
12 I remember calling Dan and saying, "Hey, we've got a little
13 issue going on here," and he said, "Yeah, I've been talking to
14 your dad," or something to that effect. And then there was
15 this, kind of, back-and-forth between Dan and my dad and myself.

16 Q. Okay.

17 Did you tell Steve McGavock anything during that call?

18 A. I think at that time I told him that I was going to talk
19 with Dan and we'd try and figure out what we're going to do
20 here.

21 Q. Now, where were you going to talk with Dan?

22 A. Well, it's his dock.

23 Q. Well, go into that.

24 Here's Captain McGavock. You know, shouldn't he be able to
25 look at that tow and say, "Oh, my gosh, it's going to sink. I

1 better get out of here"?

2 MR. JARRETT: Objection, Your Honor. This is leading,
3 and I think it gets into the subject matter that we've already
4 discussed is decided already.

5 MR. SIMMS: It goes into, Your Honor, the expertise of
6 Dan Keen and why Western looked to Vigor for information about
7 the tow.

8 MR. JARRETT: During the time when -- I'm sorry, Your
9 Honor. I still object, because this is the time when the list
10 is already presented. This is the time when decisions were made
11 about what to do about the list. This is the time that the
12 court has already decided that Western was negligent, and that
13 negligence put the dry dock at the bottom of the sanctuary.

14 THE COURT: Right. But in terms of the dry dock
15 sinking is a different issue that's still up for play.

16 All right. Let me have you rephrase your question.

17 Q. (By Mr. Simms) So you testified that you talked -- you
18 said, "Okay, Captain McGavock, I'm going to talk to Dan about
19 the tow."

20 Why would you talk to Dan about the tow?

21 A. Because I know Dan, when it was at the shipyard, was
22 working with Global to seal all these inlets and outlets up.

23 Q. Well, before that. Okay? We're taking about the first
24 step.

25 You called Captain McGavock, and you say, "Okay. I'm going

1 to talk to Vigor about this." Okay? And why did you say, "I'm
2 going to talk to Vigor," as opposed to saying, "Well, you know,
3 Steve, you're the best guy on the ground. You can see it right
4 there. I don't need to talk to anybody else. You just keep an
5 eye on that thing and use your best judgment about whether it's
6 going to sink or not"?

7 A. I called Dan because Dan prepped the dock and Dan knew the
8 dock. So if there was a condition happening with the dock, Dan
9 would be the best person to answer that question for Western
10 Towboat.

11 Q. Did you read the deposition testimony of Vigor's expert,
12 Russ Johnson?

13 A. Parts of it, yes.

14 Q. And do you recall the part of the testimony of his
15 experience during the tow that he had from the West Coast to
16 Hawaii?

17 A. Yes.

18 Q. When he had a problem, do you recall what he said he did?

19 A. Yeah. He called the guy that owned the barge, or the --
20 what was he? -- the engineer, or something like that, or the
21 architect of the barge.

22 Q. And within your professional experience as a mariner, was
23 that the correct thing to do?

24 A. Yes, because they're the person that knows the design of it
25 better than anybody.

1 Q. All right.

2 And if you were Captain McGavock, at that point what would
3 you have done?

4 A. I would want to know the same thing. If we're going down
5 by the head, how far can this thing go? What are the risks and
6 what are the limitations here?

7 Q. Uh-huh. Okay.

8 And so did you speak to Dan about that?

9 A. Absolutely.

10 Q. What did you tell Dan? What did you ask Dan, if anything?

11 A. Well, when we were talking about this. I know we were all
12 worried about this thing -- what was going on with it. But on
13 the other hand, we know -- we're talking to Dan to run these
14 numbers, and we're, like, "Well, what's the worst-case
15 scenario?"

16 And he sent back the email, that we've all seen, with the
17 list, and it said 48 feet, and thinking, Okay, the San Francisco
18 Bar, the entrance is 52 feet, so that's a risk right there for
19 Western Towboat.

20 Q. All right.

21 And so once you saw the email from Dan Keen, what did that
22 tell you about the feasibility of coming in to meet Global in
23 San Francisco Bay, across the bar?

24 A. I called my dad, and I told him it was -- personally, I
25 said, "I don't like the fact that, if worst-case scenario, this

1 thing goes to 48 feet, and you have a 52 over-keel clearance to
2 get into the San Francisco Bar -- I believe it's somewhere in
3 that neighborhood -- and you have a swell that's ten feet, it's
4 not safe, and it's not prudent seamanship.

5 Q. Okay.

6 And was that the point at which there were conversations
7 about going to Monterey?

8 A. Yeah. You know, we were talking to Dan about that, and I'd
9 given him -- he'd asked me who I knew down there that could do
10 this and that, and I said, "Well, we've got" -- a family friend
11 of ours has a tug outfit there, Ron Greger, and I said, "Well,
12 you guys use Global. I think they're up and down the West
13 Coast."

14 And we were all talking together about the best place to do
15 this. You know, we figured that we'd wait for the morning, and
16 try and -- Dan told he was flying down there and he was going to
17 set up these resources, and we're going to, you know, see what
18 it looks like in the morning, and then make our plan.

19 Q. Okay.

20 So at that point, we're talking about, what, 9:00, 9:30 in
21 the evening?

22 A. It was, yeah.

23 And my dad had been talking to the tug, and they couldn't
24 see the tow. It was foggy.

25 Q. You've heard the testimony about the list and the list

1 increasing, and from the reports you were getting from the tug,
2 were you in conversation -- in communication with the tug?

3 A. On and off, but I remember talking to Stephen, I believe,
4 like, when he got into that fog, or it was right around there,
5 and he was -- he was nervous because he couldn't see the tow.

6 Q. Uh-huh. All right.

7 And so did he report to you that he couldn't see how much
8 it was listing?

9 A. I remember that was that effect. It was, like, Let's pump
10 the brakes here and see what we've got in the morning.

11 Q. Meaning what, "pump the brakes"?

12 A. Well, we're going to keep going south towards Monterey,
13 down the coast, and then --

14 Q. Why --

15 A. -- we'll make a decision --

16 Q. Why?

17 A. So if the dry dock had stabilized, we would be close to
18 Monterey, where Vigor was organizing assets to be there.

19 Q. Okay.

20 Now, at that point, did you have any understanding from
21 anybody -- let's take it from Dan.

22 Did you have any understanding from Dan that the tow
23 certainly was going to sink?

24 A. No.

25 Q. And why are you so certain about that?

1 A. Because he said the worst-case scenario. He thought it
2 would be all right.

3 Q. All right.

4 And throughout the evening, are you continuing to talk with
5 Dan?

6 A. I think the last conversation probably would have been
7 around -- if I had one, it would probably be 8:00 or 9:00, you
8 know, telling him the game plan or something.

9 Q. Continuing to email him late into the night?

10 A. Probably texting.

11 Q. Texting? Okay.

12 Okay. At that point, you're texting back and forth. Was
13 Vigor lining up, as you understood it, Global to come and meet
14 the tow?

15 A. To my knowledge, yes. I don't know if it was Paul or Dan
16 or whoever, but I know Dan was flying down and mobilizing
17 people. We weren't asked to do any of that.

18 Q. Okay. Did anybody give Western the responsibility of
19 mobilizing people to meet the tow anywhere?

20 A. No. I just gave a phone number for Ron Greger.

21 Q. And so to your understanding, did Vigor take on that
22 responsibility to line people up?

23 A. Yes.

24 Q. Okay. Because Western didn't.

25 A. No.

1 Q. Okay.

2 Now, did Western have any responsibility to assist the tow
3 if it was in trouble?

4 A. Sure --

5 MR. JARRETT: Objection, Your Honor; calls for a legal
6 conclusion, as near as I can tell.

7 THE COURT: Sustained.

8 MR. SIMMS: Okay.

9 Q. (By Mr. Simms) Do you have any understanding of the
10 responsibilities of a tow company when they -- when you
11 encounter that a tow that is having problems? Do you have any
12 understanding of that?

13 MR. JARRETT: Objection, Your Honor; same objection.

14 Q. (By Mr. Simms) Based on your personal experience.

15 MR. JARRETT: Same objection.

16 THE COURT: It's calling for a legal conclusion,
17 counsel. Sustained.

18 MR. SIMMS: Okay. All right.

19 Q. (By Mr. Simms) Well, let's talk about the tow contract,
20 then, the contract that Western entered into.

21 Is there a requirement in it to assist the tow if the tow
22 gets in trouble?

23 A. I believe -- I don't know offhand, to be honest.

24 Q. Okay. Well, let's put it this way: Why was the tow coming
25 in toward Monterey?

1 A. Because we were trying to save this thing. We were doing
2 the best for our customer to deliver a finished product.

3 Q. Do you have an understanding of what a captain of the port
4 order is?

5 A. Yes.

6 Q. What is that?

7 A. It's an order telling you you have to stay where you're at
8 or do a certain thing or you can't enter. It can be for a
9 number of different things.

10 Q. And do captains of the port order give permissions to do
11 things?

12 A. Yes, they do.

13 Q. Did Western have any role in obtaining a captain of the
14 port order in connection with the tow?

15 A. I had none, no.

16 Q. Okay. Did anybody at Western have any role?

17 A. To my knowledge, no.

18 Q. All right. Was that Vigor handling everything with the
19 Coast Guard?

20 A. To my knowledge --

21 MR. JARRETT: Objection; lack of foundation, and we're
22 getting into the transit into Monterey, which --

23 MR. SIMMS: No --

24 MR. JARRETT: -- we've already litigated --

25 MR. SIMMS: -- we're getting into comparative

1 negligence, because it was Vigor that enabled this tow to come
2 into where it came in into. It was the captain of the port
3 order that gave permission to that, with Vigor lining up the
4 salvage and the tow company and everything.

5 THE COURT: All right. The objection will be
6 overruled.

7 The last question was, "Did anybody have any role?"

8 The answer: "To my knowledge, no."

9 Ask your next question.

10 Q. (By Mr. Simms) So -- and this is -- this -- this isn't
11 going to Your Honor's holding, but I'm going to ask about marine
12 sanctuaries.

13 Did you have any discussion with Dan Keen about marine
14 sanctuaries?

15 A. No.

16 Q. Okay. And why not?

17 A. At the time, I'm at home. I didn't have a chart. We're --
18 phone calls going back and forth, we were worried about the
19 crew, the tug, what we were going to do, what everybody was
20 going to do. It wasn't on the radar, really. We're not --
21 particularly, we're worried about losing the vessel and the
22 safety of our crew. So safety of the crew is priority number
23 one for us, as owners, because, as a family business, that's
24 what we care about.

25 Q. How late or early were you up on the evening of the 25th,

1 morning of the 26th?

2 A. I wouldn't have slept that well. I probably was up most of
3 the night thinking about it. In fact, I think I remember
4 looking at my phone and seeing them go really slow on marine
5 traffic.

6 Q. Okay. So you were tracking.

7 So as you were up that night, did anybody say to you, This
8 is absolutely going to sink?

9 A. No.

10 Q. And what was your understanding about what was going to
11 happen in the morning?

12 A. That we would assess the condition of the dock, and then
13 make the final decision to go in for repair.

14 Q. That it would be above the water?

15 A. Yes.

16 Q. Okay. So no idea that it would sink; no reason to warn
17 anybody about sinking in a marine sanctuary?

18 A. Correct.

19 MR. SIMMS: All right. We'll turn you over to Vigor.

20 THE COURT: Mr. Jarrett, if we can start
21 cross-examination for 15 minutes before our break?

22 MR. JARRETT: I would love to, Your Honor.

23 CROSS-EXAMINATION

24 BY MR. JARRETT:

25 Q. Mr. Shrewsbury, good morning.

1 While I listened to your direct examination, things get
2 different, so I have some jumping around I need to do, and I
3 apologize in advance. It's not meant to distract or confuse
4 you, so please understand if you don't understand the question.

5 So one of the things you said early on today was that the
6 folks at Western had submitted a proposal for the movement of
7 the Pacific Collector. Did I get the name of the vessel right?

8 A. Yes.

9 Q. So you submitted a proposal for the Pacific Collector to
10 Vigor. Did you-all get the contract?

11 A. No. They decided to do the repairs in Portland instead of
12 moving it to Seattle, like they had asked.

13 Q. Fair enough.

14 So then you mentioned some other jobs that you have done
15 for Vigor. And those jobs were all done in Puget Sound, right?

16 A. Correct, except for -- I think this was before. We towed
17 the United States Icebreaker *Polar Sea* from Vigor Seattle to
18 Portland yard, and then they took the shafts out of her, and we
19 towed her back up to Seattle after that. I think that was in
20 2015, though.

21 Q. Oh, so you towed a polar icebreaker before --

22 A. I think it was before.

23 Q. -- the tow of the YFD 70?

24 A. And then we did, actually, do another tow, third-party tow.
25 We towed the stern section of the Alaska State ferry. We loaded

1 it on a barge in Portland, and towed it to Ketchikan, Alaska, to
2 Vigor Shipyard.

3 Q. When was that?

4 A. Oh, probably three, four years ago.

5 Q. Okay. So after the YFD 70?

6 A. Yeah.

7 Q. Okay. Thank you.

8 So then you talked about how you have conversations with
9 Dan Keen during a dry docking, just in general. I think the
10 questions were phrased in general. So we're not talking about
11 any specific job, but I think you said that you have
12 conversations with Dan Keen over the phone, over text, over
13 email, whatever, about conditions, about the job duration, about
14 wind and weather; is that right?

15 A. Correct.

16 Q. And so but -- but Dan's -- that's during the dry docking,
17 right?

18 A. It's usually before. The night before, if Dan doesn't like
19 the weather, if he looks at the forecast and it's supposed to
20 blow, we'll cancel. Like the other week, we had the *USS Chosin*
21 that was supposed to come off dry dock, and -- it was, I think,
22 on Thursday -- it was a Thursday, or something -- and the
23 weather -- the wind was supposed to be blowing, and we ended
24 up -- or maybe it was a different boat -- but the weather
25 forecast wasn't adequate for what he wanted to do on the dock.

1 It was over parameters, per se.

2 Q. With the dock -- the parameters of the dock?

3 A. No. It's for the evolution, too. You know, you've got to
4 float the vessel, so you're transiting this thing in and out of
5 docks, so it's a safety-margin thing.

6 Q. During the dry docking, Dan Keen is in charge of the
7 operation because it's his -- I'm holding up air quotes, for the
8 record -- it's his dry dock, right?

9 A. I'm not sure I'd go -- sometimes there's a pilot on the
10 vessel, but once it gets into the dock, I don't know officially.

11 Q. Okay. Fair enough. I don't, either. That's why I asked.

12 Okay. So you -- and I wanted to get this subject done
13 before we move into the relevant stuff.

14 During the -- after the list was reported -- you just
15 talked to Mr. Simms, at some length, about that evening of the
16 25th of October 2016.

17 After that list is reported, you had various conversations
18 with Dan Keen, right?

19 A. Yes.

20 Q. Did you talk to anybody else employed by a Vigor company
21 that night, during the listing and eventual sinking of the
22 YFD 70?

23 A. I wouldn't have had their numbers, no.

24 Q. Okay. So Dan was your contact at Vigor?

25 A. He was the liaison, yes, between Western Towboat and --

1 Q. Gotcha.

2 Oh, sorry to interrupt. Sorry to interrupt.

3 So when you're talking to Dan, you reported the initial --
4 well, you reported a list to him at 6:00 or so in the evening;
5 is that about right?

6 A. I think we would have reported the initial phone call. I
7 think I did, and told him we were going to be watching it and to
8 see what's going on. I can't remember 100 percent on that.

9 Q. All right.

10 A. But I know as soon as we had an inkling of a list, I would
11 have talked to Dan.

12 Q. Okay. And you said to Dan, "The guys are pretty sure
13 there's a list, and we'll get back to you after we observe it
14 for an hour or two to make sure"?

15 A. Correct. It's hard -- as you saw in the testimony, it's
16 hard to tell when you're rolling around in the ocean there.

17 Q. I believe me, you don't want me to do anything on a boat,
18 so I believe you.

19 So the crew on the vessel, or the mates on the vessel, we
20 heard their testimony about they observed the dry dock for a
21 while and confirmed, at least to themselves, that there was a
22 list on it at 2:30 or so in the afternoon on October 25.

23 Do you recall that?

24 A. Somewhere in that timeframe, yeah.

25 Q. So was that the point at which you called Dan to say,

1 "We've confirmed it. There's a list"?

2 A. I can't tell you the time, six years ago or whatever it is.
3 I don't know, but I know Dan was notified.

4 Q. All right.

5 Okay. So this case comes down to some details,
6 Mr. Shrewsbury.

7 So you informed Dan there might be a list, the guys are
8 going to check it out, and then you called him back an hour or
9 two later -- I'm not holding you to that timeframe -- an hour or
10 two later, you called him back and said, "Yep, there's a list
11 for sure"?

12 A. That's correct.

13 Q. Did you tell him an estimate of the degree or did you
14 quantify the list, in any respect, for Dan?

15 A. At that point, I think we were thinking it was three feet.

16 Q. A three-foot list?

17 A. That was around 7:00 or whatever.

18 Q. All right. And then Dan eventually responded with that
19 email that we've seen, Exhibit 34 -- I don't need to look at it
20 right now -- that he -- well, the email speaks for itself, but
21 there is a diagram of a dry dock generated by a computer, and
22 some words from Dan over that.

23 Is that his response by email that you were talking about
24 during your direct testimony?

25 A. There was one of them, yeah.

1 Q. Okay. So -- all right.

2 So you reported that there was a three-foot-or-so list on
3 the dry dock?

4 A. I'm assuming -- yeah, I know there was -- there was talk of
5 numbers, because Dan wanted numbers to run models.

6 Q. Sure.

7 At any point that evening, did you report to Dan that the
8 list had increased?

9 A. I couldn't recall.

10 Q. All right. Good. So we can move on to a different area of
11 testimony.

12 So, Mr. Shrewsbury, your company has one of the better
13 websites of marine operators that I've seen. And I looked at it
14 a little bit this morning.

15 So Western holds itself out as an ocean-towing company?

16 A. That's correct.

17 Q. Yeah.

18 And part of the -- and so you're an ocean-towing company
19 expert, right? That's what your company is, an expert
20 ocean-towing company?

21 A. We like to think we are good at our jobs, yes.

22 Q. Sure.

23 And you employ highly credentialed, excellent operators.
24 We talked to a bunch of people that work for you this week, and
25 I'm not trying to discount that expertise.

1 In Western's experience, there are some risks associated
2 with ocean towing, aren't there?

3 A. There's a risk anytime you step on a vessel and perform a
4 task.

5 Q. Yeah, but there are risks particular to ocean towing, don't
6 you think?

7 A. Particular to ocean towing? Sure.

8 Q. So what are those, as far as you're concerned?

9 A. Well, if you're, say, going from here to Hawaii, and you
10 have issues, you're a little bit farther away from land.

11 Q. Okay. And how might issues arise on an ocean tow?

12 A. Well, I'd be worried if you had a fire on a vessel, a
13 mechanical breakdown, depending on equipment. I mean, if you go
14 to Hawaii and you suck up a fishnet out in the middle of the
15 ocean and foul both propellers, that's an issue.

16 Q. Sure.

17 Could weather also be an issue during a tow?

18 A. Weather is always an issue, no matter where you are.

19 Q. Right.

20 So you have some in-house expertise for trying to figure
21 out how to do the job safely in light of the potential weather
22 that you might encounter, right?

23 A. Yes. There's a lot of skilled people.

24 Q. Good. So we'll come back to that.

25 But as a company, you probably have some priorities for

1 your operation. I know a lot of clients that I work for have
2 some, sort of, fundamental things that they try to do.

3 So what are the fundamental priorities for Western Towboat
4 Company?

5 A. Doing the job well and correctly and safely.

6 Q. There you go. Okay. So safety is, at least, a priority
7 for Western Towboat Company?

8 A. I'd like to think it is a priority for every company.

9 Q. Sure. But for your company --

10 A. Always.

11 Q. -- it's a priority.

12 A. Always.

13 Q. It's probably your first priority when you talk to your
14 crews, right?

15 A. Yes.

16 Q. You want to make sure that the people are protected, that
17 the job is done safely, and that's -- I mean, I think lots of
18 the companies that I work for would say that's what they try to
19 do at the end of every day is to have everybody come back safely
20 when they get back from a voyage.

21 A. Yeah.

22 We've been a company since 1948. We've never had a
23 fatality on any of our vessels. The other companies in Seattle
24 can't say the same.

25 Q. Well, that's great, and, sincerely, I appreciate that. I

1 represent a lot of towing companies, and they have -- everybody
2 has crews, everybody's crews are exposed to risks as they work
3 on boats, and to the extent you protect yours to the extent you
4 have no fatalities in the history of your operations, that's
5 wonderful.

6 So safety of the people is the most important thing.
7 Safety of equipment has got to be right up there, though, isn't
8 it, in your priorities?

9 A. Yes.

10 Q. And you don't just tow your own equipment at Western
11 Towboat Company, do you?

12 A. We tow for many different people.

13 Q. Sure. And you tow equipment owned or operated by lots of
14 different people, right?

15 A. Correct.

16 Q. So safety of that equipment has to be one of your top
17 priorities when you're towing somebody else's equipment, right?

18 A. Yes.

19 Q. All right.

20 At the end of the day, Western Towboat Company is a
21 for-profit company, though, isn't it?

22 A. Yes, it is.

23 Q. So you want to make a little money, too. After you protect
24 your people and your equipment and other people's people and
25 equipment, you want to make a little money at the end of the

1 day, right?

2 A. Like every business, yes.

3 Q. Well, like every for-profit business. Sure.

4 So you recognize with me that you want to do jobs as safely
5 and as efficiently as possible while wasting as little money as
6 possible, right?

7 A. Do you want to rephrase that?

8 Q. Sure.

9 You want to maximize your return on investments, to the
10 extent you can do that, while recognizing the importance of the
11 safety of the people and the equipment in your operation.

12 A. Not necessarily.

13 Q. You don't want to maximize your return on investment?

14 A. Depending on the situation.

15 Q. What would make you want to make less money when you're
16 still protecting the people and equipment in your operation?

17 A. Well, there's some times we get into jobs that are kind of
18 interesting and fun. Like, we had a Wendy's on one of our
19 barges, and we got our tug and barge on the news. We didn't
20 make a lot of money on that job, but it was a fun job.

21 Q. Oh, I see. Okay.

22 So I read your deposition, and I didn't see a lot of
23 discussion about trainings of your operators therein.

24 Do you have trainings for the operators of Western's
25 vessels?

1 A. We do.

2 Q. And those trainings, do they include things like -- well,
3 safety?

4 A. Yeah.

5 Q. Do they include things like voyage planning?

6 A. Yeah.

7 Q. So how many -- and are operators on a schedule of
8 trainings, or is it just kind of willy-nilly?

9 A. We have our winter training every year, which is about a
10 two-week session. We have a couple different ones that we cycle
11 all our crews through.

12 We have a weekly online-based training, and we also do it
13 for different people. Like, now we have to do -- for mates, the
14 rules and regulations have changed over the years. There's a --
15 it's called a TOAR, Towing Officers Assessment Record. So the
16 port captain will take out mates and train them how to properly
17 do the required tasks in that.

18 And then every voyage you get on, you have mobile ops,
19 which there's drills and scenarios. We also do internal audits,
20 external audits, drills with Transport Canada, audits with
21 Transport Canada because of our freight business. So there's a
22 lot of different training that goes on.

23 MR. SIMMS: Can we pause for a minute? We have some
24 fact witnesses in the courtroom. Can we ask them to leave,
25 please?

1 Are any of you fact witnesses? No? You're going to
2 testify today?

3 MR. JARRETT: Not in our case.

4 MR. SIMMS: All right. Please go ahead. I just -- go
5 ahead.

6 MR. JARRETT: All right.

7 THE COURT: I hope it didn't surprise you that there
8 are other people who might be interested in this.

9 MR. SIMMS: I hope so.

10 MR. JARRETT: I recognize one person in the pews, Rose
11 Olstrom, who is an associate in my law firm is here, but she
12 isn't going to testify.

13 THE COURT: Welcome.

14 Counsel, let's go ahead and take our break.

15 (Court in recess 10:32 to 10:52 a.m.)

16 THE COURT: All right, Mr. Jarrett. You may continue
17 your cross.

18 Q. (By Mr. Jarrett) You were telling us about the training
19 program that Western has for its operators. And does Western
20 train watchstanders on how to maintain watch in the wheelhouse
21 of a tug?

22 A. Typically -- well, that just depends. Like, guys that come
23 from the academy now, to get a license, they get all that
24 training at, like, Cal Maritime or at the Pacific Maritime
25 Institute here in Seattle.

1 Q. So Western doesn't provide additional training before
2 turning them loose on your boats?

3 A. Oh, we do. It's all part of your required Coast Guard
4 training. To maintain your license, you have to go and take --
5 you know, do that, and then we also, with our in-house training,
6 we do that, yes.

7 Q. And it's important for Western to know that its
8 watchstanders are competent and do the job correctly while
9 they're working, right?

10 A. Correct.

11 Q. And so are your watchstanders periodically evaluated for
12 the way they do the job?

13 A. Yearly.

14 Q. So the ones that we have heard from a lot in this case are
15 Captain McGavock, right? Captain McGavock, he's been evaluated
16 yearly for the way he drives tug boats for you; is that right?

17 A. In theory, yeah.

18 Q. In theory? Sometimes it doesn't happen?

19 A. It should. I mean, what we do is a yearly evaluation.
20 Your crew evaluates the captain, and then the crew evaluates the
21 crew, and it's confidentially turned into the office.

22 Q. Sure.

23 So for Captain McGavock, for his evaluation in 2016, was
24 the sinking of YFD 70 a subject of that evaluation?

25 A. It's purely a crew evaluation of his duties aboard the

1 vessel. So the evaluations generally happen around -- well, it
2 would be -- I think it's in the spring. I'm not 100 percent.
3 So it would be whatever crew he was on the vessel with at that
4 time, or his regular crew would evaluate him. We try and get
5 the people. If Stephen -- like, right now he is on a regular
6 run, as he mentioned, going to Whittier, his normal crew would
7 evaluate him, because they spent the most time with him.

8 Q. Okay. So did the crew mention the sinking of the YFD 70 in
9 their evaluations of him?

10 A. That wouldn't have been part of our standard form.

11 Q. So was Captain McGavock disciplined for any conduct
12 relating to the sinking YFD 70?

13 A. No.

14 Q. Was he issued any -- were there any plans put in place to
15 retrain him or to make better any of his practices following
16 that sinking?

17 A. No. He's a great captain.

18 Q. Okay.

19 After this court's ruling that Captain McGavock and Western
20 were negligent, in some respect, with respect to the sinking of
21 the YFD 70 in the sanctuary, will Captain McGavock be retrained
22 on anything now?

23 A. No. We believe he wasn't negligent, as a company, and we
24 stand by our captain's decisions.

25 Q. Okay.

1 I'm not seeing it, so I'm not sure that it was done, but
2 was there a Western Towboat investigation of the sinking of the
3 YFD 70?

4 A. I believe so. That would have been Jeff that did that.

5 Q. I've seen some statements of the folks -- the men on the
6 boat at the time. Was there a report of that investigation
7 written up anywhere?

8 A. I can't speak to the matter of that. I don't know.

9 Q. Okay. It didn't rise to you anyway, that investigation?

10 A. At the time I was sailing, working on the tugs three or
11 four days a week, so I wouldn't have been in the office to know.

12 Q. Fair enough.

13 So now to the other watchstanders on the vessel, and,
14 specifically, I'm asking -- maybe you don't even use that term.

15 So for Kyle Jacobson, has his -- he's not an employee
16 anymore. Was Kyle Jacobson trained by Western in how to stand
17 watch in the wheelhouse of any Western tug?

18 A. He attended Pacific Maritime Institute, so he would have
19 had that training for his license there, and then whatever our
20 winter training programs would have been.

21 Q. So that's where he would be trained on how to take
22 observations regarding wind and weather the vessel was
23 encountering?

24 A. I'm not 100 percent on the program there, so I couldn't
25 answer that.

1 Q. Okay.

2 He did that while he stood watch in the wheelhouse of the
3 *Ocean Ranger* on this voyage, though; you're aware of that,
4 right?

5 A. It's standard in our logbooks to estimate the weather.

6 Q. Do you personally have any doubts or a lack of confidence
7 about Mr. Kyle Jacobson's ability to stand a watch on a tugboat?

8 A. Standing watch? No.

9 Q. When he worked for you, he was a competent watchstander,
10 wasn't he?

11 A. Yeah. He did a nice job for us.

12 Q. Good. So you had confidence that his notations in a vessel
13 log were worthy of competence; is that right?

14 A. I don't know. I'm not going to make assumptions on just
15 writing things in a logbook. I can't see what he sees, so I
16 can't make an assumption on that.

17 Q. All right. So you don't know if he wrote things down
18 competently or not on this voyage; is that what you're saying?

19 A. I would assume he would.

20 Q. Okay. Have you seen anything during -- you sat through
21 this entire trial, to this moment. Have you seen anything that
22 would make you doubt any of the notations that Kyle Jacobson
23 made in the *Ocean Ranger* log?

24 A. Yeah. When you look at the difference between Cowgill's
25 observations and his, there is a noticeable difference within a

1 short period of time. So it's all estimation. Some people,
2 like earlier in this trial, may perceive something as different.

3 Q. What's the difference between Jacobson's notations and
4 Cowgill's, in your mind?

5 A. I noticed on some of the -- or we went through it -- or
6 Dave was going through it, with respect to the sea heights and
7 wind, there was a different in speeds between watch-change.

8 Q. Which one was higher and which one was lower?

9 A. John was lower.

10 Q. John was lower, and Kyle was higher?

11 A. That's what I observed in the one log sheet there, yes.

12 Q. So John -- we were talking at the break about
13 Mr. Cowgill's -- the fact that he worked an entire career
14 fishing in Alaska -- right? -- and then came down here and is
15 working 20 years on for Western, to date. Is that your
16 understanding as well?

17 A. Yep.

18 Q. And you have confidence in Mr. Cowgill's abilities to stand
19 a watch and accurately observe the weather, do you?

20 A. As long as he's wearing his glasses, yes.

21 Q. I think he was wearing them yesterday. So could we assume
22 he was wearing his glasses when he worked for you?

23 A. I can assume.

24 Q. Fair enough.

25 It's important to Western that the watchstanders are as

1 accurate and uniform as possible when they're writing in the
2 logs of a vessel, right?

3 A. Sure, for pertinent information, yes.

4 Q. Good.

5 When a captain needs help with weather forecasts during a
6 voyage, what is the captain supposed to do, according to Western
7 procedures?

8 A. Well, he can always call the office, or he can call -- use
9 any means of help he wants. It's master's discretion at Western
10 Towboat.

11 Q. And we looked at the tow plan amendment a number of times
12 here, but that identifies Rich Courtney as a resource for help
13 for the captain during the voyage.

14 Do I need to bring it up, or do you recall that?

15 A. Yeah.

16 Q. You do recall that?

17 A. Yes.

18 Q. Okay. Thanks.

19 Do you personally have confidence in Mr. Courtney's
20 abilities?

21 A. I've never used him so I can't speak to that matter.

22 Q. Sure.

23 During your deposition, you talked about him, and you said
24 that he has a degree in meteorology -- you acknowledged that he
25 has a degree in meteorology, but you also said you took a class

1 in meteorology at Cal Maritime.

2 A. Correct, yeah.

3 Q. So he's not standing on the deck of the vessel, so you have
4 more confidence in the observations of the person on the deck of
5 the vessel than you do in Rich Courtney?

6 A. Yeah, real-time, yes.

7 Q. Okay.

8 So in the end, I think it's -- well, it's my memory that
9 Captain McGavock testified that he did not consult Rich Courtney
10 at all on this voyage. Is that your recollection also?

11 A. Correct.

12 Q. Did you did you talk to Rich Courtney about this voyage?

13 A. I wouldn't have, no.

14 Q. What do you mean you wouldn't have?

15 A. I was wasn't in the office. I was working on the boats
16 more.

17 Q. Okay.

18 Oh -- more jumping around for you, sir.

19 From the website, I think I saw that Western builds its own
20 towboats in Western's own yard; is that correct?

21 A. Correct, since 1980, I think it was, somewhere in that
22 neighborhood.

23 Q. Okay. Cool.

24 Do you have marine engineers on staff at Western Towboat?

25 A. We use Jensen Maritime consultants. We also use Glosten

1 here in Seattle.

2 Q. So those are outside design professionals; is that right?

3 A. Yeah. And then we have, also, we use another guy, Mark
4 Siburg, with Argonaut Marine, who is an engineer, and he,
5 actually, is on site a lot as, kind of, a contractor to Western
6 Towboat.

7 Q. You bet.

8 And my point is that you don't design vessels yourself;
9 that is, Western employees don't take pen to paper and draw what
10 the vessel should look like and where things attach and what
11 equipment goes where, do you?

12 A. We do, actually. My father designed all our tugs, and I
13 designed our newest one, the *Mariner*, and we work directly,
14 hand-in-hand, with the architects.

15 Q. So do you use structural calculations?

16 A. That's what the architect and engineers are for.

17 Q. Mechanical calculations?

18 A. I don't do that.

19 Q. So, again, is that what the outside engineers and
20 architects are for?

21 A. Vessels are built to class, most of the ones we've built,
22 so you have to have an outside source. And then you also have
23 to have it verified by an outside engineering firm, like ABS,
24 RINA, DNV, something like that, before you can even build.

25 Q. Because ABS, RINA, they know that Western is an expert

1 ocean-tower, or we assume they do, but they also know that
2 Western is not a marine engineer or a naval architect, correct?

3 A. Incorrect. They're classification societies.

4 Q. Sure.

5 A. So in order for the tug *Ocean Ranger* to go from Seattle,
6 out in the ocean, down to, say, Ensenada, you have to have a
7 certificate for an ocean voyage, a load line, and that's
8 issued -- like in the *Ocean Ranger's* case -- by a classification
9 society, ABS, where all the designed is improvement. It has to
10 use ABS-certified plate, and it has to be inspected regularly.

11 Q. Okay. So do you know how to accomplish that design
12 yourself, you, Russell Shrewsbury?

13 A. We work with the engineers and architects and ABS to do
14 that.

15 Q. Again, I'm asking for your personal knowledge, sir.

16 A. No. Sorry. No.

17 Q. Okay. Thank you.

18 So you rely on engineers to help you do the job safely and
19 efficiently, right?

20 A. When constructing a vessel, yes.

21 Q. Okay.

22 So now let's talk a little bit about Rich Shaw.

23 So I'm unclear. Have you ever seen the tow-plan amendment
24 that Jeff Slesinger put together?

25 A. I believe I sent it to the Coast Guard. I don't know

1 how -- remember how or when I got it.

2 Q. How did -- if you know -- Mr. Slesinger come up with the
3 tow-plan amendment? How did he make that document?

4 A. I don't know.

5 Q. You do recognize, though, that the sea-conditions part of
6 that tow-plan amendment is different than in the original tow
7 plan, don't you?

8 A. I do, yeah, looking at it, yes.

9 Q. What he did was he reduced the seas that he advised the
10 crew to ideally -- he reduced the recommendations from those in
11 the original tow plan significantly, didn't he?

12 A. Looking at it afterwards, yeah.

13 Q. Okay.

14 And do you know how or why he did that?

15 A. I couldn't tell you, no.

16 Q. So do you know if Mr. Slesinger got any survey or
17 recommendations from Richard Shaw?

18 A. Personally, no, I don't.

19 Q. Okay.

20 Do you know if you got any survey report or surveyor's
21 recommendations from Rich Shaw?

22 A. To my recollection, it was just the draft that I received
23 that I sent to the Coast Guard.

24 Q. So you never -- you don't think you got any follow-up
25 documents from that?

1 A. I don't remember. If I did, it would have been forwarding
2 on whatever it was, probably. Generally, they don't tend to
3 change.

4 Q. Well, you've seen in this case it did change, haven't you?

5 A. Yes.

6 Q. All right. So let's talk about Richard Shaw.

7 Would you agree that he is an expert marine surveyor?

8 A. Given his qualifications in the industry, I've only known
9 him as a good surveyor, yeah.

10 Q. All right. So you've seen him around Puget Sound during
11 surveys for other people; is that right?

12 A. I haven't seen him around; only on the jobs we've done.

13 Q. Okay. Has he done surveys on other jobs that you've done?

14 A. He did do another Vigor -- I can't remember what it was,
15 offhand.

16 Q. Okay.

17 Did you hear conversations from the folks at Western
18 that -- did anyone say anything to the effect of, Who is this
19 Rich Shaw character? We don't know this guy. He doesn't know
20 what he's doing.

21 A. No. Jeff just knew of him. That was all.

22 Q. Was Jeff Slesinger, your port captain at the time, or
23 maybe -- strike that. Was Jeff Slesinger your port captain at
24 the time?

25 A. Director of safety training and port captain, yeah.

1 Q. Sure.

2 A. I mean, it's kind of an all-in-one title.

3 Q. And he'd been with Western for 20 years or so at the time,
4 I think, right?

5 A. I grew up going to Alaska with Jeff as captain when I was a
6 kid.

7 Q. And how old are you now, sir?

8 A. Unfortunately, 37.

9 Q. Okay. So that was, at least, depending on your definition
10 of "kid," it means when you were a teenager, so 20 years ago,
11 right?

12 A. Yes.

13 Q. All right. Thank you.

14 I made another note here. No, we'll skip that one.

15 So after the incident, the National Oceanic and Atmospheric
16 Administration contacted Western Towboat; is that right?

17 A. I believe so. I was not privy to that.

18 Q. You did receive, at least, one piece of correspondence from
19 NOAA, didn't you?

20 A. I believe my father did. I didn't see it.

21 Q. Okay. Did Western ever respond to that piece of
22 correspondence from NOAA regarding the sinking of the YFD 70 in
23 the sanctuary?

24 A. I don't remember. I don't know. We were under the advice
25 of an attorney at a different firm. I do know that, and that's

1 all I know.

2 Q. So --

3 A. And this was back a few years, anyway.

4 Q. You bet.

5 Do you remember when my partner, Dave Boyajian, took your
6 deposition?

7 A. I think that was a day he won't forget, either.

8 Q. So is that a "yes," sir?

9 A. Yes.

10 Q. And he asked you this question -- this is page 244, line
11 13. He asked you: "How early did you know that a government
12 federal agency might make a claim against the parties?"

13 And your answer was: "Oh, there is a letter sent to us by
14 Rachel-somebody a year or two after, maybe."

15 Do you remember that?

16 A. Yeah. That was the letter my father received.

17 Q. Okay. And so do you remember what the letter was about?

18 A. Honestly, I -- it was something to the effect of the boat
19 being in the sanctuary, I believe. I don't really remember if I
20 read it or not. I just remember my father and our other
21 attorneys talking about it.

22 Q. So I don't want you to tell us -- well, I guess, I don't
23 care. Nobody is objecting. I'm not asking what the lawyers
24 told you, Mr. Shrewsbury, but was the letter about wanting
25 Western to be involved with the research-vessel opportunity to

1 go and, actually, locate the dry dock, as far as you know?

2 A. I'm assuming. I don't know.

3 Q. So, again, when my partner, Dave Boyajian, took your
4 deposition -- page 244, line 21, the question is a bit strange,
5 but here's the question:

6 "Okay. I don't have a copy of it" -- referring to
7 letter -- "it would be within" -- and then, I think, the way I
8 read the transcript, sir, is that you interrupted him to say,
9 "It was asking -- I remember seeing it. It was asking about us
10 wanting to be involved with a research-vessel opportunity to go
11 and actually locate the dry dock, and that was it."

12 A. Yeah. To clarify that, there was an opportunity to be
13 involved in going to find it, or something to that effect.

14 Q. Sure. Did Western --

15 A. Not -- not the name of the vessel. It was an opportunity.

16 Q. Oh, I see.

17 A. It was something to that effect, is what -- what that
18 meant.

19 Q. Okay. I understand, and I think the record understands.
20 We'll see, I'm sure.

21 So this was an opportunity to be involved with the research
22 vessel. Did Western take the government up on that opportunity?

23 A. Under the advice of our attorney, I think, if I remember
24 correctly -- we're okay to say that, I'm assuming -- but they
25 told us not to do anything.

1 Q. So did Western do anything?

2 A. No, because we didn't contractually obligated to.

3 MR. JARRETT: Okay. I'm getting smirks and shakes of
4 the head, Mr. Shrewsbury, so I think I'm done with my
5 examination, sir. Thank you for your patience.

6 THE COURT: Thank you, counsel.

7 Counsel, anything further based on the cross?

8 MR. SIMMS: Yes.

9 REDIRECT EXAMINATION

10 BY MR. SIMMS:

11 Q. So Mr. Jarrett asked about aftermaths of the sinking. And
12 was anybody threatened -- was there any -- did anybody lose
13 their license as a result of the sinking?

14 A. No.

15 Q. Did the Coast Guard have any investigation of anybody's
16 license?

17 A. Not that I'm aware of, no.

18 Q. Was there any Coast Guard conclusion, that you're aware of,
19 of negligence or breach of safety protocols or anything in
20 connection with the sinking?

21 A. To my knowledge, no, there was not.

22 Q. Okay. So -- all right.

23 MR. SIMMS: Okay. Done. Thank you.

24 THE COURT: Thank you. You may step down.

25 Counsel, you may call your next witness.

1 MR. SIMMS: We will call Dr. Hudson, and he is on the
2 phone. So I think he knows that he needs to punch in the
3 asterisk, and he'll be able to speak.

4 Dr. Hudson, are you on with us?

5 THE WITNESS: I am. Can you hear me?

6 THE CLERK: Yes, we can.

7 UNIDENTIFIED SPEAKER: Boy, can we.

8 THE COURT: Dr. Hudson, good morning. Thank you for
9 joining us. It's my understanding you are being called as a
10 witness by the plaintiff. Of course, there will be an
11 opportunity, once that questioning is finished, for
12 cross-examination by the defense, and then we may go back and
13 forth once or twice. Do you understand?

14 THE WITNESS: Yes, Your Honor.

15 THE COURT: All right. We need to swear you in,
16 because your testimony will be sworn under oath, and our clerk
17 will handle that. So please pay attention to the oath, and then
18 answer her question.

19 PATRICK HUDSON,
20 having been first duly sworn, testified as follows:

21 THE CLERK: Please state your name for the record, and
22 spell it for the court reporter.

23 THE WITNESS: Patrick Hudson, H-u-d-s-o-n.

24 THE COURT: Counsel, it sounds like we might have a
25 little bit of trouble in terms of being able to listen to him.

1 Let me instruct our court reporter to not hesitate at any point
2 in time if you are not able to make out what is being said on
3 the phone by the witness.

4 MR. SIMMS: Dr. Hudson, one thing that could help is
5 if you're on a speaker, take that off.

6 THE WITNESS: I'm actually on a headset, but if that's
7 not good, I can take off the headset.

8 MR. SIMMS: All right. The headset ought to be pretty
9 good. We'll see how it goes.

10 And, Nancy, if you have a problem, please let us know.

11 All right. Are we ready?

12 THE COURT: You may inquire.

13 MR. SIMMS: Before we do, is there any way we can tell
14 who else is on the telephone?

15 THE CLERK: The hearing is open to the public, so we
16 don't, generally, have them identify themselves.

17 MR. SIMMS: We do have a sequestration order, which
18 makes that kind of interesting.

19 THE CLERK: Well, if any other witnesses --

20 MR. SIMMS:

21 THE CLERK: -- potential witnesses are on the line,
22 we'd ask you to identify yourselves.

23 MR. SIMMS: Is Mr. Naylor on the phone?

24 MR. HOWARD: Mr. Naylor is a retained witness as well
25 as an expert witness.

1 MR. SIMMS: I'm just interested if he's on the phone.

2 THE COURT: There was no answer, counsel.

3 MR. SIMMS: Okay. All right.

4 DIRECT EXAMINATION

5 BY MR. SIMMS:

6 Q. Dr. Hudson, I have put up on the screen your report, which
7 has been entered into evidence. And you were here in person the
8 other day and have you been listening in to the proceedings that
9 have gone on?

10 A. Yes, I have.

11 Q. Okay. All right.

12 Now, would you briefly -- because it's in your report --
13 tell us something about your background, and, in particular,
14 have you ever had any responsibilities concerning dry docks?

15 A. Well, I graduated from the U.S. Naval Academy with a degree
16 in naval architecture, and I spent 26 years in the Navy,
17 combined with the Naval Reserve (inaudible) so I had
18 about (inaudible) I graduated -- retired as a commander in the
19 Reserves. My specialty was engineering duty officer. And of my
20 26 years in the Navy, about ten and a half were on active duty.

21 In the latter part of my career, I was involved in mainly
22 ship repair and heavy-lift dry dock vessels. I was the
23 executive officer of the Navy's heavy-lift dry docking unit, and
24 we trained and operated to, basically, observe the heavy lift of
25 Navy vessels in dry dock.

1 Q. Okay. And as part of those responsibilities with the Navy,
2 did you have any responsibilities relating to the tow of dry
3 docks?

4 A. I had the responsibility with the heavy lift of dry docks.
5 We heavy-lifted the ASBM from Norfolk, Virginia, to Todd
6 Shipyard in Seattle. So we were involved with the preparation
7 for the heavy lift and the on-load of the dry dock onto the
8 heavy-lift vessel. My unit was involved with the offload as
9 well.

10 Q. So what I'd asked is about your responsibilities with dry
11 dock and anything to do with the towing of dry docks, and what
12 was your answer?

13 A. I was never directly involved with the towing of dry docks,
14 but I was involved with the heavy lifts of dry docks. Our unit
15 heavy-lifted a similar dry dock, which had been the YFD 67, from
16 Norfolk, Virginia, when the Navy retired it and sold it to Todd
17 Shipyard in Seattle. So we heavy-lifted that dry dock because
18 it was deemed not safe to tow to Seattle.

19 Q. Okay. And did your responsibilities involve assessing the
20 structural integrity of dry docks from a marine architecture
21 standpoint?

22 A. Yes. I was involved -- my unit and I were involved in
23 inspecting dry docks for NAVSEA certification.

24 Q. Okay.

25 A. We would go down and crawl through the tanks and inspect

1 the structure and inspect the thickness of the steel.

2 Q. All right. Now, would you briefly describe to the court
3 what your professional conclusions were in your report about the
4 YFD 70? If you want to refer us to a page, we have the report
5 up on the screen.

6 A. Well, just to summarize my findings first, the first was
7 that the dry dock should not have been towed in one piece. It
8 was not the design and not the recommendations for the actual
9 requirements by the Navy.

10 When it was operated by the Navy, the dry dock had to be
11 separated into three parts. And this wasn't for convenience;
12 this was for the important fact that the longitudinal bending
13 stress for the completely assembled dry dock would be too great
14 to handle waves, and not only the bending stress, but also the
15 connections between the three sections.

16 Q. And make sure -- because there is a lot of long words here,
17 like "longitudinal bending stress," make sure you're speaking
18 slowly enough, because the court reporter is taking this down.

19 A. I understand. I'll try to be slower.

20 Q. Okay. Please continue.

21 MR. HOWARD: Your Honor, to the extent that there has
22 been an agreement and an order entered that opinions are limited
23 to those expressed in the report, there was no opinion expressed
24 in this report regarding stresses on the connections between
25 sections, and we object to that as a new theory that was not

1 disclosed in discovery or the expert report. I've, actually,
2 heard nothing about it until this morning, when they tried to
3 bring it up with their fact witness.

4 MR. SIMMS: We will have a rebuttal. The court has
5 said that there may be a rebuttal offered, and so we are going
6 to come to that.

7 Q. (By Mr. Simms) And, Dr. Hudson, would you tell the court,
8 briefly, a summary of the conclusions in your primary report
9 before we turn to rebuttal?

10 MR. HOWARD: Objection.

11 THE COURT: Before we go there, I'll note the
12 objection on the record. The court is also concerned about any
13 testimony outside of the report. But I'll let you put it on the
14 record, and then whether or not it's determined to be useful,
15 for the court's purposes, whether or not the court allows it, we
16 can make that ruling later.

17 MR. SIMMS: I understand, Your Honor.

18 MR. HOWARD: Thank you.

19 THE COURT: All right.

20 Q. (By Mr. Simms) So you were summarizing the conclusions of
21 your report. Let's just start with that.

22 A. The one-piece tow.

23 As described in my report, the manual for the AFDM 14,
24 specifically stated -- and this is on page 12 of my report --
25 that the dock must be disassembled and both end sections off and

1 secured in the center section for towing.

2 Q. Now, Dr. Hudson, you referred to the AFDM 14. What, if
3 anything, does that have to do with the YFD 70?

4 A. AFDM 14 was the later designation by the Navy of the
5 YFD 71. There were three docks -- those were sister docks --
6 the 69, the 70, and the 71.

7 Q. Okay. Please continue with the summary of your report and
8 your conclusions.

9 A. The tow-suitability survey by Captain Shaw did not either
10 address or quantify any construction and structural capacity of
11 the dry dock, due to the corrosion of the plating and
12 stiffeners.

13 In reviewing Captain Shaw's suitability survey, I noted
14 that there were no photographs in his survey or much description
15 of the ballast tanks. There were no photographs of the ballast
16 tanks, and the description of the ballast tanks' description
17 was, basically, that they were good.

18 I did examine a total of 444 photographs that were provided
19 as part of Captain Shaw's production. And I looked at all the
20 photographs, particularly the ones that showed the tanks, and
21 these photographs showed extreme corrosion, and corrosion which
22 would make me conclude that the structure was not in a good
23 condition.

24 At the time I wrote my report, we had no ultrasonic
25 thickness measurements available to us.

1 Q. Okay. Please continue with the conclusions of your report.

2 A. So I stated that while a survey placed a limit on sea
3 state, there was no analysis in the survey that would support
4 why it was seas eight to ten feet.

5 THE COURT: Dr. Hudson, please repeat your answer.

6 A. While the survey placed an arbitrary limit on sea state --
7 in other words, the eight- to ten-foot limit -- there was no
8 analysis in the survey that supported that limit. And there was
9 no consideration of the structural condition of the dry dock,
10 and so that while there's nothing that would support why that
11 would be eight to ten feet. The dry dock was not designed to be
12 towed in the open ocean with the end sections attached, because
13 when you increase the length from just the center section to the
14 full 528 feet, the bending stresses in the dry dock are much
15 greater, and those increased bending stresses, combined with the
16 decreased structural capacity of the dock from apparent
17 corrosion, could cause or exacerbate flooding.

18 Q. (By Mr. Simms) Could exacerbate? Could you say that
19 again? Could exacerbate flooding?

20 A. Could cause or exacerbate flooding.

21 Q. All right.

22 A. My other findings concluded that the design details of the
23 connection between the center section and the end section would
24 have included 16-inch-diameter pipes and 18-inch-diameter
25 flooding holes, and those holes had to be properly sealed to

1 ensure there was no flooding through those.

2 When the dock was designed, it was designed to be assembled
3 and then used, and when it was used, they needed flooding holes
4 between the center section and the end sections.

5 But the requirements for -- the Vigor requirements for
6 operation of the dock included specific requirements for sealing
7 these holes -- these flooding holes before towing; hence, in
8 towing, the center section would be separated from the end
9 sections.

10 Q. Okay. And I'm looking at page 14 of your report, the final
11 sentence there. Would you tell the court what you meant by
12 "failure to follow accepted procedures for preparation of the
13 dry dock for open-ocean towing"?

14 What were the accepted procedures for preparation of the
15 dry dock for open-ocean towing?

16 A. The accepted procedure for towing of this dry dock included
17 the Navy requirements for towing the dry dock; the design
18 drawings, which stated that the dry dock needed to be separated.
19 And, also, there was a report -- and I mentioned this on
20 page 12 -- in the planning for towing the YFD 69 from Portland
21 to Seattle, Mr. Hayes provided a report, from Heger Dry Dock,
22 that included the work-breakdown structure, and part of that
23 work-breakdown structure included separating the sections.

24 Q. Okay. And then in that last sentence, you have -- let me
25 go back down to page 14 -- "combined with inadequate structural

1 maintenance of the dry dock." What do you mean by that?

2 A. The high degree of corrosion that I observed in the
3 photographs that were produced by Bowditch surveys, which were
4 not included in Captain Shaw's survey report, showed excessive
5 corrosion in both the plating, the bulkheads, the frames, and
6 that degree of corrosion was what I consider inadequate
7 structural maintenance.

8 Q. Did you include in your report some of those photographs
9 that you saw indicating heavy corrosion?

10 A. I did.

11 Q. Are those the ones at page 7?

12 A. Page 7. That's just an example of Ballast Tank 14.

13 Q. Now, why did you focus on Ballast Tank 14?

14 A. Well, I didn't specifically focus on just Ballast Tank 14,
15 except it is in the aft end section. But that's just examples.
16 You know, in the 444 photographs there's, you know, a hundred
17 examples of corrosion.

18 The other thing I noted in his photographs is that he did
19 not have photographs of every single tank.

20 Q. Which tanks --

21 A. There were only --

22 Q. -- were not included in the reports -- in Captain Shaw's
23 report?

24 Let me put it this way: Were there tanks that you
25 considered to be important for the buoyancy of the 70 which did

1 not have photographs included in the report?

2 A. Yes. Ballast Tank 14, for example, is right in one of the
3 end sections. And so it's right -- it's near the -- in fact, it
4 is -- includes the connection between the end section and the
5 center section.

6 And there were several other -- I'd have to go back and
7 tabulate which compartments did not have photographs, but there
8 were not photographs of every single compartment.

9 Q. All right. So this is a 60,000-foot view, but have you
10 summarized your report now?

11 A. I have, yes.

12 Q. Okay. Now what I would like to turn to is your rebuttal
13 consideration.

14 Have you read and considered Vigor expert Michael Naylor's
15 report?

16 A. Yes, I have.

17 Q. Okay. What, if any, observations do you have in rebuttal
18 about that report?

19 MR. HOWARD: Your Honor, we object to the extent that
20 they submitted one rebuttal report in advance that was not for
21 this witness. We received no rebuttal report. They've had Mike
22 Naylor's report for months. And they're now, during trial,
23 giving us opinions that we should have been provided in advance,
24 as they did for the one expert whom they listed as a rebuttal
25 expert. We object to this as beyond the scope.

1 MR. SIMMS: Your Honor, in your order in limine, you
2 allowed for three things: You allowed for rebuttal reports; you
3 allowed for experts to sit in to the trial -- that is, Western's
4 experts -- to observe the testimony and comment on it; and you
5 allowed for them to give rebuttal testimony, and that was not
6 limited to testimony about a rebuttal report.

7 And I think -- I read it, re-read it, and that was,
8 clearly, what the court's order was. That's why we brought the
9 experts here, that's why we had Dr. Hudson and all of the
10 experts here ready to testify and to respond to the points,
11 including engineering points, that have been introduced with
12 other -- with Vigor's experts.

13 THE COURT: All right. Counsel, the report -- again,
14 the objection will be noted. It will be overruled at this time.

15 MR. SIMMS: Okay.

16 Q. (By Mr. Simms) So, Dr. Hudson, would you offer your
17 rebuttal, starting with expert Naylor's report. What are your
18 observations about his report?

19 A. Well, the first one involves the condition of the YFD 70,
20 particularly compared to the condition of the YFD 69.

21 On page 6 of Mr. Naylor's report, he states, "In Heger's
22 opinion, it is possible that YFD 70 was in slightly worse
23 condition in comparison to YFD 69, as YFD 70 operated in
24 saltwater conditions; whereas, YFD 69 operated in freshwater."

25 For reference, Heger's analysis of YFD 69 conservatively

1 assumed 10 percent general corrosion, and this report assumes
2 the YFD 70, in general, is 15 percent corroded, with the
3 exception of the pontoon deck, which is more deteriorated.

4 Q. And let me stop you. I've just put up on the screen
5 Mr. Naylor's report, and were you reading from page 37?

6 A. I was reading from page 6.

7 Q. From page 6. Okay.

8 A. Above the subtitle of "longitudinal strength."

9 Q. Okay. I see it. Okay. This is almost at the bottom of
10 the paragraph. Okay. Please continue.

11 A. So, Mr. Naylor, you know, a couple of paragraphs above,
12 speaks of the YFD 69 and the one-piece wet tow of the 69 from
13 Portland to Seattle. And Heger Dry Dock, ultimately, reached
14 the conclusion the dock could be safely towed in sea states. I
15 would note, they also reached this conclusion after first
16 stating that the dock had to be separated into three parts.

17 But the fact that -- you know, the assumption that the YFD
18 70 was only slightly worse than the 69 is in direct contrast
19 from the photographs produced from Bowditch, compared to the
20 photographs of the YFD 69.

21 It was interesting to note, in the Bowditch survey of the
22 YFD 69, that he included photographs of the tanks and specific
23 descriptions of a few of the tanks, and the photographs of the
24 tanks showed them to be in very good condition. They had been
25 operating in freshwater. They'd never been operating in

1 seawater. You compare those photographs to the ones which were
2 not in his survey for YFD 70 that show the tanks in
3 exceptionally worse condition.

4 Q. Do you have any further observations in rebuttal to
5 Mr. Naylor's report?

6 A. I do.

7 Looking at his analysis of the longitudinal bending
8 strength of the dry dock in various configurations, he has
9 curves starting on page 12.

10 Q. Okay. I'm going to go to page 12. Do you have that? All
11 right.

12 A. And Figure 7.

13 Q. Okay. So Figure 7, that is page 12. Okay. I have it up.
14 Please go ahead.

15 A. So those colored curves are curves of bending moments.

16 Q. What is a bending moment?

17 A. So if you take a box or a piece of wood, and you bend it in
18 either end, you create -- if you bend it down, you create
19 tension on the top surface and compression on the bottom
20 surface.

21 So that is similar to when a ship experiences or a dry dock
22 experiences waves, which is sagging when the bow and stern are
23 supported on waves and the middle section is not, so the middle
24 section tends to sag, or hogging, where the crest of the wave is
25 at the mid-part of the ship, and the ends are not supported on

1 waves.

2 So because of this difference in buoyancy along the dry
3 dock, because of the waves, you get varying degrees of loading.
4 So this is not how the dry dock was intended to be operated,
5 fully assembled in sheltered water, where there are no waves.

6 So if we look at his curves of the bending moment, he has
7 dotted lines for ultimate strength and safe limit.

8 Q. That's at the top?

9 A. Safe limit at the top, and two for hogging and two for
10 sagging, and those dotted lines are based on his own
11 interpretation of what the condition of the dry dock was,
12 including his assumption of 15 percent corrosion.

13 And by 15 percent or 40 percent, whatever percentage when
14 you talk about corrosion, you look at the original thickness of
15 the steel and what steel is left after corrosion.

16 So he's assuming 15 percent corrosion in all the structure,
17 except for the pontoon deck, where you see 40 percent corrosion.
18 That percentage refers to what percentage of thickness of the
19 steel has been removed due to corrosion.

20 So if your steel was one-inch thick, after 71 years you
21 assume that you lose some of that steel due to corrosion, and 15
22 percent allowance means you only lost 15 percent of thickness to
23 corrosion, and 40 percent means you've lost 40 percent
24 thickness.

25 The point of comparison, the ultrasonic thickness gauging

1 of YFD 70, which was produced after my report, showed areas in
2 the pontoon deck that were nearly 70 percent corroded.

3 But going back to Figure 7, those color curves represent
4 different wave conditions, and he has the legend at the top of
5 Figure 7, showing what his estimate of the bending moment would
6 be in different wave conditions.

7 Q. And we'll hear from Dr. Kriebel about wave conditions.

8 A. So if you look at how he plotted those curves, he plotted
9 them directly above an elevation of the dry dock taken from a
10 CAD drawing, and you can see that those curves start at the
11 center section. So they don't start at the end section.

12 So what Mr. Naylor analyzed was the longitudinal bending
13 stress, or bending strength, of just the center section, not the
14 completely assembled dry dock.

15 Q. In looking at Figure 7, there is a drawing at the bottom,
16 which appears to be the dry dock, but the curves don't extend to
17 both ends of the dry dock. Do you have any opinion or
18 observation about that?

19 A. Yes. That's exactly what I was referring to. The curves
20 start -- if you go down from the ends of those curves, they seem
21 to start at Frame 1, which is the intersection between the end
22 sections and the center section.

23 If you look at that elevation on the bottom, you can see
24 that there's -- there's the interface between the end sections
25 and the center section. It kind of looks like a Tetris piece.

1 But that is --

2 Q. It looks like a what?

3 A. Like -- we used to play Tetris. You know, it's a --

4 Q. Tetris.

5 A. It is a multidirectional interface, both horizontal and
6 vertical.

7 So the center section fits over the end section, but the
8 center section starts at Frame 1, where his curves start. His
9 curves don't extend the full length of the dry dock. What that
10 means is his calculations were based on just the center section
11 longitudinal strength, which we already know, from the original
12 design, it was designed to handle waves.

13 Q. Okay.

14 A. And if you were to plot these curves going to both ends,
15 you'd have much higher bending moments in the center of the dry
16 dock.

17 But even in his curves, you can see that, for a significant
18 wave height of ten feet, wave lengths of 500 feet, which is less
19 than the length of the dry dock, they exceed the safe limits for
20 sagging.

21 Q. Okay. And so his assumption about 15 percent corroded,
22 what, if anything, would be a difference if the dock was 20
23 percent corroded?

24 A. The dotted lines would move down, so the safe limit would
25 be lower.

1 Q. The safe limit would be lower. Okay. How much would they
2 move down?

3 A. Well, I would have to calculate what that would be.

4 Q. But, in general, if the corrosion level is higher than 15
5 percent, then the safe limit would be less in terms of
6 structural integrity?

7 A. Yes. As a comparison mentioned in the report, the AFMD 14
8 Navy manual, which I referenced. And I know you don't have a
9 copy of that in front of you, but they talk about the fact that
10 originally the dock was designed with a maximum bending moment
11 of 220,600 foot-long tons.

12 But in 1984, after they overhauled it, they reduced that,
13 due to corrosion that had taken place between 1945 and 1984, and
14 they then get to 178,000 foot-long tons.

15 So if you look at his curves, 178,000 foot-long tons is
16 somewhere between -- about halfway between 150 and 200. So that
17 safe limit has moved down, just in 1984, and this is for the YFD
18 71, not the YFD 70, but it's, you know, the same basic -- you
19 know, with an increase of corrosion, you have an decrease in
20 allowable bending stress, and so your bending moment will
21 decrease.

22 Q. And the 71, was that a dock kept in San Francisco?

23 A. Yes. That dock was operated by the Navy until, I believe,
24 1999. And it was decaying -- it was sold to the Port of San
25 Francisco, and decaying, the Eureka.

1 And I mentioned in my report that they did a structural to
2 the belly of the Eureka and found that there was, in 2017, it
3 was unsafe for lifting operations. And quoting the report, and
4 this is on page 8 of my report, they say, "As discussed" -- this
5 is quoting the dry dock Eureka report, "As discussed in this
6 report, a significant number of UT thickness readings," "UT"
7 being ultrasonic -- "UT thickness readings show a current steel
8 thickness of 25 percent to 50 percent of the original, due to
9 corrosion."

10 And those numbers are in line with the YFD 70 UT survey
11 that was completed in 2013.

12 And they go on to say, in their report, "The corroded deck
13 plate in its current condition has drastically reduced the
14 transitory strength of the dock."

15 Q. All right.

16 A. And going back to the statement that the YFD 70 was only
17 slightly worse than the YFD 69, it's not supported.

18 Q. And just relating to this, you heard testimony that the
19 sale price of the 70 was \$10,000, with many dollars in excess of
20 that to prepare it to tow, or whatever, or get it to tow. Does
21 that tell you anything about the assumption, at all, about the
22 corrosion factor or, generally, the condition of the 70?

23 MR. HOWARD: Objection; relevance and speculation.

24 THE COURT: Sustained.

25 MR. SIMMS: Okay.

1 Q. (By Mr. Simms) Did you come to understand, from listening
2 to testimony or otherwise, that the Vigor intention for the tow
3 was to scrap the 70?

4 A. Yes. From my analysis of the documents, the intention was
5 to scrap it. They sold it for scrapping in Mexico.

6 Q. Uh-huh. Okay.

7 And did you hear testimony about the price that it was sold
8 for?

9 A. Yes, I did. \$10,000.

10 Q. And in your professional opinion, familiar with dry docks,
11 do you draw any observations about that and the condition of the
12 dock?

13 MR. HOWARD: Same objection, Your Honor; relevance and
14 foundation.

15 THE COURT: It's not relevant.

16 Mr. Simms, we're straight up at noon. How much more do you
17 have for this witness?

18 MR. SIMMS: Probably a half an hour.

19 THE COURT: And then there's going to be
20 cross-examination?

21 MR. JARRETT: There will be.

22 THE COURT: Counsel, we'll go ahead and take our noon
23 break at this point in time.

24 But I just want to bring to your attention -- especially
25 Mr. Simms -- I need you to finish your case today, because we

1 are doing everything we can to try to move things around for
2 next week so that we can allow the defense their day and a half
3 or two days that they requested. That's what we were able to
4 pull out. Wednesday and Thursday of next week are the only two
5 days that we can possibly have. If not, you're looking at
6 sometime probably well into September before we're able to get
7 back to this.

8 So you have three other witnesses today that you have
9 intended to put on. You need to finish with this witness, so
10 you'll have until our close of business today to get that
11 testimony on.

12 MR. SIMMS: Yeah. And I need to talk to the court
13 about the timing of that for the next week, too.

14 THE COURT: Those are the only two days I have
15 available.

16 MR. SIMMS: Then we would have to move to September.

17 THE COURT: Well, maybe it's a good time between the
18 parties to talk about this, during the lunch break.

19 MR. SIMMS: Uh-huh. I think we can finish today,
20 subject to the cross-examination. So when Dr. Hudson comes back
21 on, we'll finish up with the rebuttal, and turn it over to
22 cross.

23 MR. HOWARD: Your Honor, we had planned to do our
24 complete examination of Mr. Naylor, to make him not have to come
25 back. If they take Mr. Naylor next, that would not leave much

1 time for the other two witnesses. So if they get those other
2 two witnesses done first, we would probably be able to
3 finish out -- if they call Mr. Naylor next, it will impair his
4 ability to finish his case.

5 THE COURT: I figured as much. That's why I told him
6 he's got to be finished by the end of business today.

7 MR. HOWARD: Thank you, Your Honor.

8 THE COURT: All right. We'll be at recess.

9 (Court in recess 12:00 p.m. to 1:16 p.m.)

10 THE COURT: Do we have Dr. Hudson on the phone?

11 MR. HOWARD: Your Honor, before we proceed, I'd like
12 to clarify something.

13 We have Mike Naylor, who is a retained expert for the
14 defense. He was on the phone earlier, and he informed me he
15 could not figure out how to unmute his phone when the court
16 asked if anyone was listening in. He was, and we were
17 proceeding while he was still trying to figure out how to unmute
18 his phone.

19 THE COURT: That reminds me of the many times when
20 I've tried the same thing.

21 Thank you for bringing that to our attention, and Mr. Simms
22 is aware of that now.

23 Counsel, you may proceed.

24 Q. (By Mr. Simms) Dr. Hudson, we are back.

25 One part that didn't quite come through is your degree,

1 which is in naval architecture; is that correct?

2 A. Yes. It's a Bachelor of Science degree in naval
3 architecture.

4 Q. And so we're looking at this exhibit from Mr. Naylor's
5 opinion, Figure 7. You talked about a Tetris figure. What did
6 you mean?

7 A. Looking at that, I'm referring to the end piece has both a
8 vertical and a horizontal --

9 Q. Make sure you speak slowly.

10 THE COURT: Mr. Simms, if it helps, I understand
11 exactly what the expert is testifying to. I can look at the
12 exhibit, at Figure 7, and I can see exactly what he means about
13 the Tetris pieces down below, the way they are connected and
14 where they connect on the chart.

15 MR. SIMMS: All right. We'll move ahead. Thank you.

16 Q. (By Mr. Simms) So, Dr. Hudson, what is the next
17 observation that you have in rebuttal to Mr. Naylor's report?

18 A. Well, it goes to, you know, he took some exceptions to my
19 report, and I just wanted to address those.

20 As far as the Eureka, I think we've discussed it
21 previously, but the Eureka was a YFD 71 and was similarly
22 maintained by the Navy until 1999. It was in good shape. And
23 then by about the same time, in 2013-2014, it was deemed not fit
24 because it had corroded so badly.

25 So the conditions of the two docks could vary dramatically,

1 depending on the maintenance programs. So the docks had,
2 basically, the same maintenance program when they were owned by
3 the Navy. And, certainly, after that, it's -- looking at the
4 photos from the Eureka report, they are very similar to the
5 photos in the Bowditch production that Captain Shaw did not
6 include in his report of the tanks.

7 Q. And so are you saying that you would expect, based on your
8 professional opinion and familiarity with dry docks, that the 70
9 would be in the condition of the 71, the Eureka?

10 MR. HOWARD: Objection, both leading and cumulative of
11 the report.

12 THE COURT: Sustained.

13 Q. (By Mr. Simms) What are you saying when you're making this
14 observation about the Eureka?

15 A. If you go back to my report, when I spoke about the Eureka.

16 Q. Okay. We're on that page, page 8.

17 A. Page 8.

18 The two docks were built at the same time. They had
19 similar maintenance periods, similar maintenance procedures when
20 they were owned by the Navy, and they were both in saltwater.

21 So my only comparison is that the Eureka is a better
22 comparison to the YFD 70 than the YFD 69. YFD spent its entire
23 life in freshwater in Portland, until it was towed up to
24 Seattle. So the fact that it was in much better shape,
25 structurally, below the deck is not a surprise, and given that a

1 10 percent allowance was given to the YFD 69 for corrosion, I
2 would suggest a much greater allowance be given for corrosion on
3 the YFD 70, considering the photographs and considering what we
4 later saw after my report. The UT survey concluded in 2013 for
5 YFD 70, you had pontoon deck plating that was as much as 70
6 percent corroded.

7 Q. And if the 71 Eureka and the 70 were not NAVSEA qualified
8 but the 69 was, would that tell you anything about the
9 comparison?

10 A. Yes, in that I have completed surveys from NAVSEA
11 certification on floating dry docks, and I know that YFD 70
12 would never pass a NAVSEA certification in the condition I found
13 in the photographs in the Bowditch production.

14 Q. Do you have any other observations in rebuttal to
15 Mr. Naylor's report?

16 A. I do not.

17 Q. You also listened to the testimony of Mr. Keen. Do you
18 have any comments in rebuttal to that testimony?

19 A. Well, the first comment is that Mr. Keen -- I don't have a
20 transcript, but I believe he referred to the fact that the YFD
21 70 could be split into three parts, as a matter of convenience,
22 in a fixed condition to allowed it to be towed anywhere, from
23 World War II.

24 Certainly, the fact that they required it to be towed in
25 just the center section with the front and stern sections on

1 top, not because of convenience, but because they realized that
2 the longitudinal bend strength of the fully assembled 528-foot
3 dry dock could not handle open-ocean waves.

4 Q. Now, you heard that -- before we go past that, you heard
5 the testimony that this was not an open-ocean tow but, instead,
6 was a coastal tow.

7 In your experience, is -- first, was that a correct
8 statement that there is difference between an open-ocean tow and
9 this tow along the coast?

10 A. No, it was not. The California Coast gets deep very
11 quickly. I grew up in Carmel, in Monterey. I know the
12 California Coast. I know the symmetry of the California Coast.
13 The water is very deep, and that is definitely open ocean all
14 the way down.

15 Q. Do you have any other observations about Mr. Keen's
16 testimony?

17 MR. HOWARD: Your Honor, Mr. Keen was here as a fact
18 witness. I don't know that the expert rebuttal of a fact
19 witness is appropriate testimony. We object to the scope.

20 THE COURT: Mr. Simms?

21 MR. SIMMS: That's why the experts are here, to
22 comment on the -- and, particularly, Mr. Keen is talking about
23 the engineering capabilities of the dock and also talked about
24 the repairs that were made and the supposed compliance to make
25 a -- due diligence of this dock. And as an expert, Dr. Hudson

1 is prepared to testify in response to that statement that the
2 things that Vigor did were compliant with due diligence.

3 MR. HOWARD: I don't believe he's been disclosed as a
4 due-diligence expert, and, certainly, where he grew up and the
5 depth of the California Coast is beyond the scope of what he was
6 disclosed for. I think we're getting far afield, Your Honor.
7 That's why I'm objecting.

8 THE COURT: I agree. The objection is sustained.

9 Q. (By Mr. Simms) So when you looked -- you mentioned that
10 you looked at many photos that Mr. Shaw had taken, and you heard
11 the testimony that there had been repairs done. Did you see,
12 based upon your experience, that repairs had been done to the
13 70, reflected in those photos?

14 A. I looked at every one of the 444 photos that were included
15 in his production. I could not find any evidence of, you know,
16 some of recent repairs in any of those credited areas that had
17 been mentioned in the UT report --

18 Q. In the ultrasound --

19 A. -- ultrasonic thickness.

20 Q. If there had been repairs in that two-year period between
21 the ultrasonic report and the 2015 photos, what would you have
22 expected to see?

23 A. I would have expected to see areas of brittle-looking steel
24 with welds, and I didn't see any of that. I didn't see any
25 replacement of beams or stiffeners. I, in fact, saw in one of

1 the photos, in Tank 4, looking up, it appears to be two holes in
2 the main deck where sunlight is coming through.

3 Q. And you heard the testimony about what holds the dry dock
4 on: Bolts. Do you have any comments, from your professional
5 opinion, about that?

6 A. I don't know when those bolts were last replaced.
7 According to the procedure that Mr. Naylor documented in 2013,
8 when he recommended that the dock be split into three parts, he
9 recommended that all the bolts be discarded and new bolts be
10 installed, which I would concur with, because after years of
11 corrosion, the bolts are going to be too difficult to remove,
12 and will probably have to be cut off.

13 Bolts corrode just as much as steel corrodes, and there are
14 no photographs in the Bowditch production by Dr. Shaw showing
15 the condition of those bolts, or even any photographs of the
16 interface between either the center and front section or the
17 center and stern section.

18 Q. Okay. And then --

19 A. -- I don't have any --

20 Q. I'm sorry. I interrupted.

21 A. I don't have any information as to what the condition of
22 those bolts are. But unless they were recently replaced, I
23 would have an expectation that they would, you know, not be of a
24 condition that would support the same structural load as they
25 were when they were new or as for which they were was designed.

1 Q. From a naval architecture perspective, is the bolting of
2 the end sections designed for a one-piece tow?

3 A. It is not. That built-in section was designed for use of
4 the dry dock in calm water for, essentially, vertical holds and
5 bending moments. It's certainly not designed to take ocean
6 waves.

7 And while the Mr. Naylor's calls for the bending moments,
8 bending stress in the back, even though he only configured that
9 the center section, he did not mention what the effect on that
10 connection would have been. And that would have -- if I was
11 going to recommend towing this dry dock in open ocean, I would
12 recommend the detailed engineering design and evaluation of that
13 connection to be sure that the bending moments would not cause
14 excessive tensile force in those bolts that might cause them to
15 separate, and cause one of the sections to separate from the
16 center section.

17 Q. And you heard the testimony about the installation of pad
18 eyes for connection of the tow gear, and what was your
19 understanding from that testimony about the location of this pad
20 eye installation?

21 MR. HOWARD: Your Honor, I renew our objection. This
22 is a whole new theory, apparently, first introduced this
23 morning, beyond the scope of any issues in this case.

24 THE COURT: The objection will be sustained.

25 MR. SIMMS: All right.

1 Q. (By Mr. Simms) Did you have any observations, based on the
2 testimony of the naval architecture soundness, of the tow
3 configuration that Vigor presented to Western?

4 MR. HOWARD: Same objection. This is the same
5 question, just a different way to get at it.

6 THE COURT: It is, counsel. Let me have you move on.

7 Q. (By Mr. Simms) Do you have any other observations to offer
8 before we turn you over to Vigor?

9 MR. HOWARD: I will object if it's just an invitation
10 to say the same thing.

11 THE COURT: Let me have ask you a specific question,
12 if you have any, Mr. Simms.

13 Q. (By Mr. Simms) Do you have any concluding observations
14 about Mr. Naylor's report?

15 A. Well, aside from what I've already mentioned, I do not
16 think he considered the actual condition of the YFD 70. And I
17 think if you use the actual corrosion loss in the steel, the
18 assumptions he made would show that it was not capable of even
19 the ten-foot tow that he stated it was.

20 In addition to that, the calculations he has for the
21 longitudinal bending member only extended up to the ends of the
22 center section. So it would have been much higher if he had
23 calculated it for the entire length of the dock.

24 MR. SIMMS: All right. We will turn you over to
25 Vigor.

1 MR. HOWARD: Thank you.

2 THE COURT: Cross-examination by Mr. Howard?

3 MR. HOWARD: Thank you, Your Honor.

4 CROSS-EXAMINATION

5 BY MR. HOWARD:

6 Q. Good afternoon, Mr. Hudson. Can you hear me?

7 A. Yes, I can.

8 Q. Okay. My name is Christopher Howard. I'm here on behalf
9 of Vigor.

10 Because a lot of this is responding to issues you brought
11 up today, I may skip around a bit. Please ask me to slow down
12 or repeat if I skip too quickly. Is that okay?

13 A. Yes, it is.

14 Q. Okay.

15 And I'm going to make a special effort to speak slowly.
16 That's for the court reporter. Don't take that as anything
17 negative about you.

18 A. Okay.

19 Q. I want to deal with one of the most recent points, out of
20 order, and then I'll go to my outline.

21 MR. HOWARD: Ms. Ivie, could you put up Figure 7 from
22 Mr. Naylor's report?

23 Q. (By Mr. Howard) Do you have Mr. Naylor's report in front
24 of you?

25 A. Yes, I do.

1 Q. Okay. And we've just spent a considerable amount of time
2 on Figure 7.

3 First, I want to ask: Did you do any calculations to check
4 the accuracy of the calculations Mr. Naylor did in Figure 7?

5 A. No, I did not.

6 Q. Okay. Did you do any calculations to check the accuracy of
7 any of Mr. Naylor's calculations?

8 A. No, I did not.

9 Q. Did you do any calculations?

10 A. I did calculations for stability and list of the dock, but
11 as far as bending moment, I did not do any calculations.

12 Q. Now, your report did not show your math or your
13 calculations; is that correct?

14 A. That's correct.

15 Q. Okay. So going back to high-school math, Mr. Naylor showed
16 his work so you could double-check it. You did not, right?

17 A. Which work are you referring to?

18 Q. Mr. Naylor showed his calculations, and you made comments
19 about them; is that right?

20 A. That's right.

21 Q. Okay.

22 Now, Figure 7 is up here on the screen in the courtroom,
23 and would it be accurate to say that you assume, because the
24 various colored lines end at the point where a mark has just
25 been -- well, a mark has been made in the courtroom -- you're

1 assuming the calculations did not extend to the end simply
2 because the chart -- the graph did not extend to the end?

3 A. No, I did not.

4 Q. Okay.

5 So you believe that Mr. Naylor -- if Mr. Naylor comes up
6 and testifies to the court that, yes, his calculations included
7 the entire distance, but the chart doesn't have all of that
8 because it's just a flat line, you have evidence to the
9 contrary?

10 A. The bending moment would not be zero at that point that is
11 shown close to zero.

12 Q. That wasn't my question.

13 Did you check his math?

14 A. I did not check his math.

15 Q. So are you in a position to contradict Mr. Naylor when he
16 testifies to this court -- and I'll ask you to assume that he
17 will -- that he ran these numbers with the full distance of the
18 YFD 70, including the two end pieces?

19 A. I'm sorry. Is there a question there?

20 Q. Yes.

21 Are you in a position to contradict that? Can you point me
22 to some mathematics in this report to show that he based it upon
23 the shorter distance, that you assume, as opposed to the entire
24 distance that he will testify his math is based upon?

25 A. I don't see any calculations in his report --

1 Q. Okay.

2 A. -- that show the actual length.

3 Q. So I'm going to ask the question I tried to ask before, and
4 then I'll drop this.

5 So your assumption is that he did not include the entire
6 length because his chart does not go the entire length; is that
7 correct?

8 A. My assumption is he did not include the entire length
9 because the bending moment is close to zero at the end of the
10 center section, which is what you would expect if you only look
11 at the center section.

12 If you look at the original bending moment curves -- in
13 fact, the bending moment curves that he provided in his 2013
14 report -- you'd see that it's not close to zero at the end of
15 the center section.

16 Q. But you did not actually run the calculation to tell me
17 where that's wrong, other than your belief that it shouldn't be
18 close to zero?

19 A. I did not run any calculations, no.

20 Q. I'm going to change subjects, because I want to get this
21 done as quickly as possible.

22 Mr. Hudson, can you tell me the meaning of "forensic" in
23 your profession?

24 A. In my profession, as a forensic engineer, it is the
25 scientific analysis of a failure of something that has happened

1 in the past.

2 Q. And your work primarily related to litigation or the legal
3 field; is that correct?

4 A. I've worked both in the legal field and in the insurance
5 field in the last five, ten years.

6 Q. And how much of your work right now is forensic?

7 A. All of my work right now is forensic.

8 Q. Have you ever designed a dry dock?

9 A. No, I have not.

10 Q. And I believe you indicated -- I just want to clarify --
11 that you have not worked a dry dock up to be towed; is that
12 correct?

13 A. I have not worked a dry dock up to be towed, no.

14 Q. You mentioned you worked a dry dock up to be moved by
15 heavy-lift ship; is that correct?

16 A. That is correct.

17 Q. And you delivered that -- you were involved in that
18 yourself, correct?

19 A. Yes.

20 Q. It was a delivery to Todd Shipyard in Seattle?

21 A. It was.

22 Q. And you delivered --

23 A. I worked on the on-loads. I didn't work on delivery, but I
24 worked on the on-loads.

25 Q. You said on-loads? I needed to clarify that for the court

1 reporter.

2 A. Yes, on-loads. The dry dock was on-loaded in Norfolk and
3 carried via heavy-lift ship to Seattle --

4 Q. And you -- sorry. Go ahead.

5 A. -- I did not work on the offload, and I was not present for
6 the offload.

7 Q. So were you made aware that you delivered that dock in
8 damaged condition from the transport?

9 A. I didn't deliver the dock.

10 Q. You just coordinated the on-load of the dock?

11 A. No. We just observed it on behalf of the Navy. The
12 on-load and offload and transport were completed by the
13 heavy-lift company.

14 Q. Now --

15 A. We were the observers from the Navy.

16 Q. Changing subjects: Captain Shaw was not hired as an expert
17 for litigation, was he?

18 A. No, he was not.

19 Q. And he was there in person to evaluate the condition of the
20 dry dock prior to tow, correct?

21 A. He was.

22 Q. And you disagree with his assessment?

23 A. I do, based on his photographs that he didn't include in
24 his survey.

25 Q. And you really cannot tell how much rust or corrosion is

1 present from a photograph, can you?

2 A. You can make a qualitative assessment based on the amount
3 of scaling and the amount of loss of material and the fact that
4 in some areas I could see light penetrating through from above
5 from the sunlight.

6 Q. Do you defer to Captain Shaw in any way for his on-scene
7 assessment of the condition of the dry dock?

8 A. I don't understand your question.

9 Q. Do you give any deference to Captain Shaw in terms of his
10 on-scene inspection of the dry dock, in terms of his evaluation
11 of the condition?

12 A. I don't really have an opinion on everything he said. I
13 just looked at the photographs that were in the survey, and
14 compared it to the photographs of the YFD 69, which he also
15 surveyed, and those photographs he included in the survey report
16 show that the tanks are in very good shape.

17 In fact, in support, when he summarized the condition of
18 the dock, he said the tanks on the YFD 70 were good, which is
19 also called the tanks in the YFD 69. But looking at the
20 photographs of the two, there's no comparison.

21 Q. Mr. Hudson, I don't think I asked you that, but I'll move
22 on to save time. I'm going to broaden the question, and I would
23 like you to try to listen to it, and ask me if you aren't sure
24 you understand it.

25 A. First, before you go on, it's "Dr. Hudson."

1 Q. Okay. Dr. Hudson." I respect your schools.

2 Dr. Hudson, had you ever been on and inspected any of the
3 YFD 69, 70, or 71?

4 A. No.

5 Q. Have you ever seen any of them, even from a distance?

6 A. Yes.

7 Q. Which one?

8 A. The YFD 71.

9 Q. Okay. But you did not inspect it? You've not had that
10 chance?

11 A. I have not.

12 Q. Do you give any deference to the people who have inspected
13 it with respect to their knowledge of the condition of those
14 three vessels?

15 THE COURT: Counsel, I'm not sure that that's a
16 question that he can answer. I think he's given us his best
17 answer.

18 MR. HOWARD: Okay. I'll move on.

19 But what I want to, basically, get from this -- and I'll
20 say this in front of the witness -- whether he's trying to
21 substitute his judgment or gives any weight at all to their
22 judgment, if he's relying upon their inspection for his opinion.

23 If I may ask him that?

24 THE COURT: Ask him that.

25 Q. (By Mr. Howard) Dr. Hudson, do you rely upon these people

1 who inspected these three vessels, at all, in forming your
2 opinions?

3 A. I rely upon -- I have relied upon the reports. But as far
4 as the three vessels, I've seen the YFD 69 at Vigor, the YFD 70
5 at Vigor, and the YFD 71, which is now the Eureka, in San
6 Francisco.

7 Q. Dr. Hudson, you put pictures in your report of certain
8 structural members in Hold 7 -- Tank 14. Do you recall that
9 portion of your report?

10 A. I do.

11 Q. What are those structural members?

12 A. Those are frames, and you can see the bulkhead plating in
13 Figure 4.

14 Q. The framing is important for the support of lifting a ship
15 out of the water; is that correct?

16 A. The framing is important for the strength of the ship --
17 the strength of the dry dock.

18 Q. You're saying that framing --

19 A. If you don't have the framing, then you don't have
20 longitudinal strength. That framing contributes to the overall
21 moment inertia at the cross-section of the dry dock. If you
22 didn't have that framing, you just had the decks and the
23 bulkheads, the dry dock would likely collapse before it even hit
24 the water. All that framing provides -- it's an important
25 structure, both the framing and the bulkheads framing.

1 Q. In your report, you make reference to a seal that you say
2 may be corroded. Do you recall that?

3 A. To -- I'm sorry. To a what?

4 Q. A seal that may be corroded.

5 A. I didn't say "corroded." I said the mastic -- are you
6 talking about --

7 Q. Yes, the mastic seal.

8 A. What -- what -- show me in your report what you're
9 referring to, and I can better respond in that respect.

10 Q. Okay. I did not transpose the page number for that one.
11 I'll come back to it rather than distract right now. It's a
12 specific page in your report that, before we finish, I'll come
13 back to.

14 I want to move now to the Eureka, the YFD 71.

15 A. All right.

16 Q. This is not a vessel that you have seen, correct?

17 A. I have seen it. I have not been aboard.

18 Q. Were you involved in it in any way when you were in the
19 Navy or the Navy Reserve?

20 A. Specifically the Eureka?

21 Q. Yes.

22 A. No, I was not, except that's when I saw it, when I was in
23 the Navy.

24 Q. So the Navy sold it when they were done with it, correct,
25 or leased it out?

1 A. They sold it, yes, they sold it.

2 Q. And the Navy had it in San Diego, didn't they?

3 A. They did.

4 Q. And, in fact, do you know how the YFD 71 was transported
5 from San Diego to San Francisco?

6 A. I do not.

7 Q. Would it surprise you if it was wet-towed in one piece?

8 MR. SIMMS: Objection, Your Honor. There's no
9 evidence of that.

10 MR. HOWARD: I will make an offer of proof that that
11 will be offered by Mr. Naylor.

12 MR. SIMMS: It's not in Mr. Naylor's report. It
13 shouldn't be offered. The court was very clear that the
14 responses would be limited to the reports of the experts.

15 MR. HOWARD: That's fact, not opinion, that we're
16 offering.

17 THE COURT: The objection will be overruled.

18 Dr. Hudson, can you answer the question?

19 THE WITNESS: Can you repeat the question, please?

20 Q. (By Mr. Howard) Would it surprise you to find out that the
21 YFD 71 was transported from San Diego to San Francisco in one
22 piece, wet-towed?

23 A. It would surprise me, yes.

24 Q. And it did make it to San Francisco, didn't it?

25 A. Yes, it did.

1 Q. NAVSEA certification. First, you are not a NAVSEA
2 certifier, are you?

3 A. I am not currently. When I was in the Navy, I participated
4 in NAVSEA certification for the technical warrant holder for dry
5 docks at NAVSEA.

6 Q. I would like to clarify. If by saying you participated in
7 certifications, you were a licensed or certified certifier for
8 NAVSEA, were you?

9 A. I don't know what a licensed certifier are.

10 Q. Are there people who are in charge of determining if a dry
11 dock meets NAVSEA specifications?

12 A. There's a team of engineers that survey the dry dock, and
13 they make recommendations to the technical warrant holder at
14 NAVSEA, who then certifies the dry dock.

15 Q. And were you on the team determining if it was -- if it
16 would meet specifications or on the team trying to help a dry
17 dock meet specifications when you were in the Navy?

18 A. I was inspecting the dry dock on behalf of NAVSEA for
19 certification.

20 Q. Now, is NAVSEA certification fairly stringent?

21 A. Yes.

22 Q. In fact, you have to do maintenance and be structurally
23 sound to pass NAVSEA specification -- well, a dry dock has to
24 have had maintenance on it and be structurally sound to pass
25 NAVSEA certification, does it not?

1 A. Yes.

2 Q. And do you have an understanding -- I'm switching now to
3 the 70, the YFD 70 -- that it was NAVSEA's certified through
4 2013?

5 A. That's what I've heard from testimony.

6 Q. Do you understand that or accept that statement?

7 A. I don't have any basis to accept it. I just heard it from
8 the testimony. I have not seen the inspection reports or the
9 certification report.

10 Q. Do you have any evidence to the contrary?

11 A. I do not.

12 Q. And to be NAVSEA certified from your experience, a World
13 War II vintage vessel would have to have repairs, maintenance,
14 fixing of steel to pass NAVSEA certification 50, 60 years later,
15 correct?

16 A. I know that it did not pass NAVSEA certification after the
17 2015 ultrasonic thickness survey.

18 Q. That wasn't my question, Dr. Hudson. Do you recall my
19 question?

20 A. Why don't you repeat your question.

21 Q. Okay.

22 In order to pass NAVSEA certification, to have been
23 certified through 2013, it would had to have had significant
24 maintenance, repair, and even replacement of steel; would you
25 agree?

1 A. I don't know when it last actually passed NAVSEA
2 certification, but prior to being certified, it would have to
3 have had maintenance.

4 Q. Significant maintenance, as in it would have to be very
5 good shape at that point, correct?

6 A. No, I would say continuous maintenance, not so much
7 significant maintenance. You don't have to have significant
8 maintenance if you've continually maintained it.

9 Q. Okay. So continuous maintenance also works, in your
10 opinion; is that correct?

11 A. That's correct.

12 Q. You have made references to the structural suitability
13 survey done on the Eureka, which is the YFD 71; do you recall
14 that?

15 A. Yes.

16 Q. Do you recall who did that structural suitability survey?

17 A. Well, the report to which I was referring in my report was
18 the structural assessment report.

19 Q. Do you recall who did that?

20 A. Believe it was GHD Talon, but I would have to look at the
21 report to confirm that.

22 Q. Do you know if Mr. Naylor, at Heger, has done surveys and
23 is personally aware of the condition of the 71?

24 A. I would certainly not be surprised, but I would not know
25 that for a fact.

1 Q. Why would you not be surprised?

2 A. Because Mr. Naylor works for Heger Dry Dock, and Heger Dry
3 Dock is well respected.

4 Q. All they do is dry docks, right?

5 A. That's right.

6 Q. And steel, when you do maintenance and repair to steel,
7 would you agree the color can change fairly quickly when a dry
8 dock is in use?

9 A. Well, the color can change, but not relative to the
10 surrounding areas.

11 All steel corrodes in the same rate. So if you have
12 freshly repaired steel next to unrepaired steel, you're always
13 going to see a difference. The new steel is not going to
14 suddenly become the same color as the surrounding steel.

15 And it's not just the color. It's the fact that the steel
16 was corroded badly and flaking away. There were areas that
17 would have had to have been repaired. In the photos shown by
18 Captain Shaw, there was no evidence, that I could see, of
19 repairs made.

20 Q. Can you tell from a photo whether it's steel that is
21 flaking or paint that is flaking?

22 A. Yes.

23 Q. You can?

24 A. I can.

25 Q. Okay.

1 By the way, just to clarify: Your opinion is that these
2 dry docks would never be safe to tow in one piece; is that
3 right?

4 A. No. I would say that the YFD 70 wouldn't be safe to tow in
5 one piece in open ocean.

6 Q. So the 69 was safe to tow in one piece?

7 A. I didn't do an evaluation on the 69. I was reading the
8 survey.

9 Q. So you don't know?

10 A. I know the 69 was in much better shape, structurally, than
11 the 70 was.

12 Q. What is mastic filler?

13 A. It's a pliable sealant that was designed to be placed in
14 the interface between the center section and the end sections,
15 to seal those sections.

16 Q. Do you have evidence that mastic filler on this case, on
17 the 70, was degraded?

18 A. I do not. I do have the breakdown structure that
19 Mr. Naylor developed for the YFD 69 in 2013, where he
20 recommended that all the mastic be replaced.

21 Q. Now, while we're on the topic, Mr. Naylor prepared -- Heger
22 Dry Dock, with Mr. Naylor, prepared more than one report on the
23 YFD 69, did they not?

24 A. They did.

25 Q. And you've been referring to the suitability report when

1 you've been referring to the report, correct?

2 A. Well, I've been referring to two reports. The relocation
3 of the YFD 69 work-breakdown structure.

4 Q. We'll have Mr. Naylor explain this in great detail, but the
5 work suitability study on the 69 is for putting it into use as a
6 dry dock, not for transporting it. Would you agree?

7 A. Well, the intent of the report was described with the
8 intent for Vigor to relocate YFD 69 from Portland to its current
9 berth in Seattle.

10 Q. Do you recall my question?

11 A. I don't know what suitability study you're referring to,
12 but this was not a suitability study.

13 Q. We'll let Mr. Naylor will explain that.

14 Would you agree the Heger report evaluated and gave the
15 opportunity for multiple different options -- or at least two
16 different options -- for transporting the 69 from Portland to
17 Seattle, correct?

18 A. The work-breakdown structure had two options; one was to
19 dock the end sections on the center section, and the other was
20 to dock the end sections on a separate barge.

21 Q. You do not believe that the Heger report also evaluated the
22 engineering aspects of wet-towing it in one piece?

23 A. Well, I know the investigation for the ability of the dry
24 dock to resist ocean-wave bending, which is a different report,
25 did have three cases. Actually, it had four cases.

1 Q. I couldn't hear what that last -- actually had what?

2 A. The other report, I believe, that you're referring to, is
3 the wave-bending resistance report, and that report has four
4 cases, 1B, 1A, 2, and 3, that has towing it as a single unit, or
5 towing it as the center section and one unit, or towing it in
6 just the center section.

7 Q. Right.

8 So Heger evaluated, did the engineering work, and prepared
9 the calculations and information, giving Vigor options on how to
10 tow this, including a single-piece wet-tow, correct?

11 A. Correct.

12 Q. And it, obviously, did survive that tow, correct?

13 A. It did.

14 Q. You have stated in your report that the 71 would be unsafe
15 in any sea state; is that correct?

16 A. Yes.

17 Q. Are you familiar with Seattle harbor?

18 A. I have been there.

19 Q. Are you familiar with what sea states are frequently
20 occurring in Seattle harbor?

21 A. I wasn't talking about Seattle harbor. If you look at my
22 report, including my findings -- let me get to the page -- page
23 14: "YFD 70 dry dock was not suitable to be towed in the open
24 ocean in any sea state in the condition configuration in which
25 it was provided to Western for towing."

1 Q. But you feel it would be safe to sustain the same sea
2 states in Seattle harbor?

3 A. I wasn't evaluating Seattle harbor.

4 Q. So you have no opinion?

5 A. I have no opinion regarding Seattle harbor, no --

6 Q. Similarly --

7 A. -- I was talking about open-ocean towing.

8 Q. Similarly --

9 A. And by the way, I didn't say it was not safe to be towed.
10 I said it was not suitable to be towed.

11 Q. Okay.

12 So if you had been asked ahead of time if this should be
13 wet-towed, you would have said no, based upon the information in
14 your report, correct?

15 A. Yes.

16 Q. And when a company like Vigor wants to determine if it's
17 safe to tow this, they go hire experts, like Captain Shaw and
18 Heger, to make that evaluation for them, correct?

19 A. They may at some times.

20 Q. I want to change subjects to the bolts.

21 Whatever opinions you gave, I want to understand that you
22 indicated you have no information about the bolts, correct?

23 A. Correct.

24 Q. So that would be speculation?

25 A. That I have no information about the bolts?

1 Q. You have no basis to give an opinion as to the condition of
2 the bolts, correct?

3 A. I didn't give an opinion as to the condition of the bolts.

4 Q. And that was based upon assumptions -- sorry. Go ahead.

5 A. I stated that if they had not been replaced, then the bolts
6 should have been examined for structural capacity, because bolts
7 corrode.

8 I did not see the bolts. I don't believe Captain Shaw saw
9 the bolts, because there were not any photographs in his 444
10 photos that showed the bolts.

11 Q. But the ultimate answer is, you do not know?

12 A. I do not know what?

13 Q. The condition of the bolts or whether or not Captain Shaw
14 saw the bolts.

15 A. There's no evidence to show that Captain Shaw saw the
16 bolts, so I do not know.

17 Q. You testified that Heger Dry Dock -- I believe your
18 testimony was -- recommended the 69 be towed in three pieces.
19 Do you recall that?

20 A. I do.

21 Q. Would you defer to Heger on what they believe they did or
22 did not recommend?

23 A. I don't know what they believe they did or did not
24 recommend. I can just read the report that says they
25 recommended towing it in three sections.

1 Q. Now, you said you did some calculations, but would it be
2 fair to say there's no calculations shown in your report, right?

3 A. Correct.

4 Q. So we cannot double-check your work on your calculations,
5 right?

6 A. My only calculations regarded the number of tanks that
7 would need to be filled, and that was in concurrence with
8 Mr. Naylor's report.

9 Q. So you don't have any other calculations beyond the number
10 of tanks needed to flood -- you didn't do that in forming your
11 opinions, correct?

12 A. Correct.

13 MR. HOWARD: I have no more questions. Thank you.

14 THE WITNESS: Thank you.

15 THE COURT: Any redirect for Dr. Hudson, based on
16 cross?

17 REDIRECT EXAMINATION

18 BY MR. SIMMS:

19 Q. Dr. Hudson, was the fundamental problem that you were asked
20 about with Captain Shaw's report -- with Captain Shaw's report
21 is that he was never informed of the design, that it was not
22 designed to be a one-piece tow?

23 A. I don't know what he was informed of.

24 Q. And you talked about the curve from the 2013 report not
25 showing bending moments at the end of zero. Could you go more

1 into that? What did you mean by that, the bending moments --

2 A. The 2013 report, there are waves -- sorry -- bending curves
3 for the different cases they looked at. And those bending
4 moments were non-zero at the end of the center section. It was
5 zero at the ends of the dock, as you would expect.

6 Q. And you got asked about this never-disclosed-before-now
7 notion that the 71 was towed in one piece, but let's put some
8 dates on that.

9 All right. I sat down after that, and I went on the
10 Internet, and I pulled up a date done by -- do you know who --
11 have you ever heard of GHD Telamon Engineering?

12 MR. HOWARD: Your Honor, I've never seen this document
13 before. I have no idea what it --

14 MR. SIMMS: I just pulled it up. I've never heard
15 anything about a one-piece tow.

16 A. That document was referenced in my report.

17 Q. (By Mr. Simms) Okay.

18 A. That's the Eureka structural assessment report.

19 Q. All right. This is the --

20 THE COURT: Hang on, Mr. Simms.

21 It was referenced in his report, Mr. Howard?

22 MR. HOWARD: Okay. I don't believe it was produced,
23 but I will accept the reference in the report.

24 THE COURT: All right.

25 Q. (By Mr. Simms) Okay.

1 So I'm looking at a table, "Summary condition of ratings of
2 the YFD 71," and it doesn't say anything about a one-piece tow.
3 But let me tell you -- and if you have it handy, you can pull it
4 up, too. This is at page 8.

5 A. Yep, I'm looking at it.

6 Q. "1995, all ballast and trim tanks sandblasted to white
7 metal and coated with long-lasting preservative."

8 Was the 70 coated with long-lasting preservative?

9 A. I did not see any evidence of that.

10 Q. All right.

11 And so then we have, after that, "Within two years, towed
12 to Suisun Reserve Fleet and mothballed."

13 Is the Suisun Reserve Fleet in San Francisco Bay?

14 A. Yes. The Suisun is up to the north end of San Francisco
15 Bay.

16 Q. And then in 1999, it was sold to San Francisco -- towed to
17 San Francisco Dry Dock. Is that in the San Francisco Bay?

18 A. Yes.

19 Q. So the tow within the San Francisco Bay, if it was in one
20 piece, was in the San Francisco Bay? Okay.

21 And then 2000, "Excellent." "Dry dock to be in excellent
22 and well maintained." Was that the situation for the 70?

23 A. No, it was not.

24 Q. Okay. And this is in 2000, and we're looking at the 70 in
25 2015.

1 And then when you look back at the AFDM 14, or the 71 --
2 and this was by, what, 2018, 2017? -- what condition was it in?

3 A. Well, the 71 is the Eureka.

4 Q. The Eureka, yeah.

5 And when you looked at it, in your report, what was its
6 condition?

7 A. Yes. That was -- that was 2017. The condition was poor,
8 not certified, (inaudible) fractures at the underdeck,
9 stiffeners (inaudible) portions, 25 percent of corrosion.

10 Q. So over the 17 years, from 2000 to 2017, the 71 had gone
11 from excellent condition to what kind of condition?

12 A. Poor.

13 Q. Was that because of, among other things, saltwater storage?

14 MR. HOWARD: Objection; lack of foundation. He has no
15 knowledge of what was done during that time.

16 Q. (By Mr. Simms) Would saltwater have --

17 THE COURT: Hang on --

18 Q. (By Mr. Simms) -- been --

19 THE COURT: Mr. Simms, when there is an objection, you
20 have to wait until the court can make a ruling.

21 The objection will be sustained.

22 MR. SIMMS: Okay.

23 Q. (By Mr. Simms) So with the 71 and the 70 kept in saltwater
24 and the 69 kept in freshwater, based on your professional
25 experience, which would you expect to be most corroded?

1 A. The 70 and 71.

2 Q. Okay.

3 MR. SIMMS: Those are my questions.

4 MR. HOWARD: Nothing further, Your Honor.

5 THE COURT: Dr. Hudson, thank you very much.

6 THE WITNESS: Thank you, Your Honor.

7 MR. SIMMS: We'll call Dr. Kriebel.

8 THE COURT: Come forward and raise your right hand to
9 be sworn.

10 DAVID KRIEBEL,
11 having been first duly sworn, testified as follows:

12 THE CLERK: Please state your name for the record, and
13 spell your name for our court reporter.

14 THE WITNESS: My name is David Kriebel, K-r-i-e-b-e-l.

15 THE COURT: And you've heard the instructions to the
16 other witnesses, so the same apply to you.

17 You may inquire.

18 DIRECT EXAMINATION

19 BY MR. SIMMS:

20 Q. Dr. Kriebel, would you tell the court of your background
21 and experience in the field of ocean engineering? And this is
22 in your report, so you can overview it.

23 A. I suppose pertinent to this case, about 40 years of
24 experience working with ocean waves; a professor at the U.S.
25 Naval Academy for 34 years. I ran a wave-and-towing tank there,

1 which simulated wave conditions for ship model testing. I've
2 done computer modeling of waves and wind-generated waves.

3 I've been selected as the U.S. representative on
4 International Standards Organization, to write international
5 standards on waves and currents. I've authored a number of Navy
6 guidance documents related to ship-generated waves.

7 I've been involved in tsunami investigations. I was one of
8 the first U.S. representatives to go to Japan after the tsunami.

9 I've been appointed by the Secretary of Army on several
10 Corps of Engineers panels and dispute resolutions.

11 And I suppose I've been very heavily involved in codes and
12 standards with the American Society of Civil Engineers, writing
13 engineering design standards that would go into national
14 building codes.

15 Q. Okay. Now let's talk about your report.

16 Please tell the court an overview of the conclusions of
17 your report; not the expert rebuttal report, but the conclusions
18 of your report.

19 MR. BOYAJIAN: Your Honor, if I may? An objection to
20 this.

21 The report is already in evidence. This is duplicative of
22 evidence that's already before the court, to the extent he's
23 just been asked to summarize things that you already have
24 already in the record, in writing, Your Honor.

25 THE COURT: And it's kind of a waste of time, counsel.

1 The report is in evidence, and the court has the ability to read
2 it just as well. Might it make more sense to utilize your time
3 to get to the very pertinent things you want to get to?

4 MR. SIMMS: All right.

5 Q. (By Mr. Simms) And so your rebuttal report and your expert
6 report, just so we're clear, that is 7, and then your rebuttal
7 report, which we've agreed would go in, is 73 -- okay. All
8 right -- and that is in evidence.

9 Now, you've had a chance to hear the evidence in court. Do
10 you have any comments on that evidence?

11 MR. BOYAJIAN: Your Honor, objection, again.

12 I believe you've, with respect to other proposed rebuttal
13 or fact witnesses, have already made rulings that experts are
14 not here to rebut fact testimony.

15 The scope of that question is so broad as to -- it's
16 unclear as to which -- whether or not it's touching on the
17 objections Your Honor has already sustained.

18 THE COURT: It's impossible for the court to make a
19 ruling when you ask such an open-ended question. I need you to
20 be specific.

21 MR. SIMMS: All right.

22 Q. (By Mr. Simms) In your professional opinion as an ocean
23 engineer, was this dock suitable to be towed in one piece?

24 A. Based on what I know about wave effects and the effects
25 that waves have on bending moments on vessels, I firmly believe

1 that towing it in one piece placed it in great jeopardy.

2 By towing it in one piece, towing the longer length, it
3 allowed for greater flexure, and that allows for greater bending
4 moments in waves of the same height, as compared to towing it in
5 the shorter configuration.

6 Stated maybe in reverse, by making it longer, the maximum
7 wave that it could tolerate is much smaller than was in the
8 original design.

9 And I think -- I learned earlier this week, listening to
10 Captain Shaw, that he was not provided with any analysis of the
11 effects of that extra length and that that was not something
12 that was considered, at least no technical calculations, at the
13 time.

14 Q. When do you believe the damage occurred?

15 A. Well, in my opinion, I believe it occurred later in the
16 trip, the 24th or 25th. I believe Mr. Naylor and I are,
17 actually, relatively in agreement on that.

18 I think the empirical evidence suggests that it made the
19 first eight days of the voyage without any apparent damage to
20 the crew and that, by my estimate, the wave conditions were not
21 particularly severe during those first several days of the trip.
22 They were in excess of forecasts, but I don't believe that a
23 particularly dangerous point.

24 But there did reach a point -- on, I estimate, the 24th --
25 where the combination of conditions would have caused this

1 structure to face the potential for much greater bending flexure
2 and hogging and sagging than it had previously in the trip.

3 Q. What was that combination of conditions?

4 A. So for almost the entire trip, the vessel was in fairly
5 large swell coming out of the northwest. And I noticed that
6 Captain Shaw, the other day, did not seem particularly concerned
7 about the large swell. He made a comment about -- it was really
8 the seas, the shorter-period waves, that he was more concerned
9 with.

10 So these longer waves, you know, I think they would be kind
11 of rolling through at very long period, very long wave length,
12 much longer than the length of the vessel. When that's the
13 case, the vessel can, kind of, ride over the waves without much
14 difficulty.

15 As I reviewed the conditions, somewhere on the 24th the
16 wind direction changed, the wind speed changed, and we had the
17 sea conditions starting to come in from the southwest.

18 The vessel was headed slightly to the southeast, but the
19 combination, at that particular point, the sea conditions
20 became, I think, a primary concern, at least -- I'm saying that
21 on my part, as an engineer -- and I think it's at that point
22 where we had the potential for the wave length of the waves to
23 match the 528-foot length of the vessel, and that's the
24 definition of a condition that will produce maximum bending
25 moments.

1 So I believe that that was most likely the point where
2 something was initiated in the voyage.

3 Q. What was initiated?

4 A. Well, I -- you know, I don't know for sure. The likely
5 scenario would be a bending stress failure. I think the
6 evidence that Mr. Naylor produced on bending moments that you
7 looked with Mr. Hudson certainly showed that, even in eight-foot
8 significant wave heights, the bending moments had reached the
9 limit, and in ten-foot wave heights, they had exceeded it.

10 So what that means is that the center of the vessel, the
11 steel in the keel, is going to be pulled apart in tension, the
12 top of the wing wall pushed together in compression, and that
13 would be under the sagging condition.

14 The hogging condition would be just the opposite. The wing
15 walls are pulled apart; the keel is put in compression.

16 Mr. Naylor showed that it was weaker, had lower tolerance
17 on the sagging component.

18 So I think the most likely thing to happen was that the
19 bending moments and then the bending stresses reached a critical
20 level at that point.

21 I don't know exactly what transpired. I don't think any of
22 us do. But the likely thing is some sort of a separation
23 somewhere in the steel, at that point, which would allow water
24 ingress.

25 Q. And you heard the testimony, and, of course, you've looked

1 at the configuration and seen the safety deck.

2 Where on the dry dock is the safety deck?

3 A. Fairly high on the wing walls. I believe I heard -- and
4 I'm not familiar with the dock -- but it's not all the way to
5 the top, but it's up fairly high on the wing walls.

6 Q. From a wave-analysis standpoint, how could a wave, which is
7 down way below the safety deck, affect the integrity of the
8 safety deck?

9 A. Well, it could do it through --

10 MR. BOYAJIAN: Objection. Dr. Kriebel just testified
11 he's not familiar with the dock. Now he's being asked specific
12 questions about how the dock would be affected by a particular
13 wave form.

14 THE COURT: Overruled. I think it to goes whether --
15 the amount of reliability the court might place on the
16 testimony, but I'll let him answer that.

17 THE WITNESS: Could you repeat the question again?

18 MR. SIMMS: Yeah.

19 Q. (By Mr. Simms) So the waves are down here, and the safety
20 deck is up higher than the waves, normally, how would any wave
21 action affect the safety deck?

22 A. I think Mr. Naylor's report is going to inform a lot of
23 that. He has a diagram in his report of some of the buckling of
24 the steel that can occur up in the high levels of the side of
25 the hull.

1 So as the vessel is being flexed, in hogging and sagging,
2 again, at certain points the steel is being pulled, at other
3 points it's been compressed, and the compression has the
4 potential for buckling to occur, where, instead of a flat piece
5 of steel, it deforms.

6 So, obviously, that region is above the direct wave action;
7 in other words, it wouldn't have likely seen a wave,
8 potentially, at that point. But it could certainly be affected
9 by this overall compression and tension, this cyclic loading
10 that's going on in the structure.

11 Q. And what did you do that makes you confident that the
12 damage occurred on the 24th or so?

13 A. Well, we know -- again, I think I said that I believe it's
14 most likely to have occurred then.

15 The conditions that I looked at ahead of that time, I
16 think, coupled with the empirical evidence of the crew
17 successfully making the voyage for the first eight days with no
18 issues, I think that indicates the conditions during that period
19 of time were not particularly severe or damaging.

20 And I say that, again, having looked at, sort of, the wave
21 directions and the wave lengths. And, again, I believe the
22 vessel would have ridden out the swell fairly well.

23 And so I think it's really, as you get to the 24th and
24 then, potentially, on the 25th, that we have this change of
25 conditions that occurred. I mentioned in my report that the

1 conditions at the time were in excess of anything that was
2 predicted. So I think, at that particular time, conditions just
3 arose and became damaging.

4 MR. SIMMS: All right. I'll turn you over to Vigor.

5 CROSS-EXAMINATION

6 BY MR. BOYAJIAN:

7 Q. Dr. Kriebel, let me start with a few things that we just
8 talked about.

9 I believe you mentioned that you have a belief that the
10 length of dry dock contributed to its failure. Did you do
11 calculations to establish that?

12 A. Comparative calculations, yes.

13 Q. And are those calculations included in your report?

14 A. No, they're not.

15 Q. Did you do calculations to conclude that the 24th and the
16 25th were the most likely time?

17 A. Yes, I did.

18 Q. And those are not included --

19 A. They are.

20 Q. Those calculations are?

21 A. Yes. Well, not the numerical calculations; the graphical
22 results, yes.

23 Q. Okay. But not the numbers.

24 A. Not the numbers.

25 Q. You just put them on a graph?

1 A. Correct.

2 Q. Because there'd been some confusion about a graph in
3 Mr. Naylor's report, and he'll testify as to the math that
4 underlies it. You're saying there was none?

5 A. There was math.

6 Q. Okay.

7 Earlier conditions in the tow, prior to the 24th and the
8 25th -- and we'll talk about the wave conditions you cited, but
9 I just want to talk about things you said for now.

10 A. Uh-huh.

11 Q. The tow encountered significant wave heights over ten feet
12 earlier in the tow. Do you recall that from the logbooks?

13 A. Yes.

14 Q. And from your own analysis?

15 A. Yes.

16 Q. Would stresses exerted during those times -- they would
17 still exert stresses on the dry dock, correct?

18 A. They would exert some. The magnitude would depend heavily
19 on the wave direction, the wave period, and the wave length. So
20 even though the height might be high, I think, just as Captain
21 Shaw mentioned the other day, a longer-period swell would not
22 have nearly the effect as some much shorter period -- or,
23 actually, of period of waves that produced a wave length that
24 matched the length of the vessel.

25 Q. Understood, but it would still exert forces?

1 A. It would exert forces.

2 Q. And if it did that for the periods like we've seen in these
3 logbooks, where there were 14 hour of waves in excess of the
4 restrictions, those could -- even if they didn't cause the dry
5 dock to take on water and sink, they certainly could weaken
6 structures within the dry dock, couldn't they?

7 A. I think that's a potential, certainly.

8 Q. Okay.

9 So when you said you agreed with Mr. Naylor when he
10 concludes that the most likely time was the 24th and 25th, did
11 you see the part of Mr. Naylor's report that says he also
12 believes that earlier periods of bad weather contributed to
13 weakening the dry dock, making it more susceptible to failure in
14 later conditions?

15 A. I did not. I'm sorry. I did not see that.

16 Q. Okay.

17 Would you agree that that is a reasonable proposition; that
18 early exposure to long periods of adverse weather, even if not
19 enough to break the dock, would weaken it and make it more
20 susceptible to later damage?

21 A. I would only agree to that stipulated by what I said
22 earlier; that you're requiring the waves come out of a
23 particular direction with a particular wave period and wave
24 length for that to really happen, and I didn't see any evidence
25 of that.

1 Q. Well, for it to happen, or would it affect the degree to
2 which it happens?

3 A. Uh --

4 Q. Is there any situation in which putting a 528-foot,
5 71-year-old dry dock into seas in excess of ten feet for periods
6 of 14 hours straight or more is good for the dock?

7 A. I mean, if -- by your argument, I think anytime you put it
8 in waves, it's going to feel some flexure, regardless.

9 So, no. All I can say is, as I looked at the conditions --
10 and I think Mr. Naylor shows this. For different wave periods,
11 the bending moments are not particularly severe. It's only when
12 the wave periods produced the wave length that matches the
13 length of the vessel that things become very critical, and the
14 magnitude of these things, the bending moments become much
15 larger.

16 Q. Understood.

17 I'm a lifelong sailor and a captain. I think you might be
18 the person best suited to answer a question I've had since I was
19 a kid.

20 Can you please describe the difference between a maximum
21 wave restriction, ten foot, no bigger, and a significant wave of
22 ten foot?

23 A. So in simple terms, significant wave height -- if I can
24 diverge for just a moment -- is kind of a universally used,
25 average type of wave estimate, and, as you heard earlier, it's

1 based on taking the top one-third of the waves -- so the most
2 severe 33 percent -- and averaging that.

3 So -- and it's universally used in NOAA forecasts, for
4 example. So all the NOAA forecasts refer to significant wave
5 height.

6 The rule of thumb for maximum wave height, then, is up to
7 about twice that. So if you asked yourself, in this random sea,
8 when the waves are moving randomly, and if you knew the
9 significant wave height was ten feet, there's a potential to get
10 waves up to 20 feet in that same sea state. And that's, you
11 know, quite well known in oceanography and ocean engineering.

12 Q. And what percentage of waves in a significant sea are
13 higher than -- say, you're in a ten-foot significant sea. What
14 percentage of waves are higher than ten feet?

15 A. So it goes back to something called the Rayleigh probable
16 distribution, which is universally accepted, I think, in our
17 discipline.

18 13.5 percent is the percentage of waves that are larger
19 than the significant wave height, theoretically.

20 Q. Okay. So if a surveyor, like Captain Shaw, recommends an
21 upper limit of ten foot, and that somehow gets transferred,
22 through someone like Jeff Slesinger, to a tow recommendation
23 that says ten feet that is then misrepresented as being
24 significant, you're saying 13 percent waves would be greater
25 than Captain Shaw's restriction?

1 A. Well, I think, as I raised in my report, the survey was, in
2 my mind, very unclear about how waves are defined. And I think
3 the -- as I did in my report, the eight to ten foot, I believe,
4 was a significant wave height.

5 And the reason I say is, significant wave height is what
6 mariners and trained observers tend to estimate visually, by
7 eye. So it's become this universally used definition of waves
8 to describe a sea state, with all the randomness, and --

9 Q. And I don't want to cut you off, but are you here as a
10 professional on the standard of care of towboat operation?

11 A. No, I'm here as a wave expert. I'm trying to explain
12 wave --

13 Q. I do understand, but I want to make sure that we stay on
14 topic.

15 A. Okay.

16 Q. So while you, as a wave expert, use significant wave
17 heights, you're not an expert to say what is common in the
18 industry for what towboat operators and surveyors exchange with
19 numbers?

20 A. I am not, except for the testimony I heard earlier this
21 week from the towboat operators that they use the NOAA charts to
22 look at wave conditions, those are significant wave heights.

23 So there's no way that an operator could use a maximum
24 limit, because they can't define it. It's not what they're
25 going to do observe directly. It's not what's going to be

1 forecast.

2 So I think all evidence, to me, points to the fact that
3 Captain Shaw intended that it was eight to ten foot significant
4 wave height.

5 Q. But you were here for Captain Shaw's testimony.

6 A. I was, uh-huh.

7 Q. And he, very clearly, said -- if you recall -- that, in his
8 mind, it was a maximum.

9 A. I did not hear that as I was listening to him and taking
10 notes.

11 Q. Okay. Well, the record will reflect that.

12 So am I to assume, then, that what you're saying is, when
13 Captain Shaw issued an eight to ten foot, what he really meant
14 was, "I know some waves will be 20, and that's fine"?

15 A. I think that's what it would have said, yes, based on the
16 definition of "significant wave height."

17 To go the other way, if he intended an eight-foot maximum
18 wave, that means a significant wave height could have only been
19 four feet, and in the Chesapeake Bay we get that. So I don't
20 think the vessel could ever have departed if he intended eight
21 feet as a maximum height. I'm sorry, it's just a ridiculously
22 low number in terms of sea state.

23 So I'm just saying, in terms of waves, I don't think it's a
24 logical way to interpret what was written.

25 Q. Sure, but he didn't write eight feet, did he? He wrote

1 ten.

2 A. Eight to ten, that range.

3 Q. So eight wasn't a limit?

4 A. Correct, it would be eight to ten.

5 Q. Okay.

6 Did you review any testimony before you wrote this report?

7 A. No.

8 Q. Okay.

9 No testimony from any of the vessel crew members?

10 A. No. I read the Coast Guard report, so that had some very
11 brief statements in it, but I did not read any deposition
12 testimony.

13 Q. Okay.

14 So when you speculated that there was possible confusion
15 about these numbers, you didn't bother to read testimony to find
16 out whether anyone said they were confused --

17 A. I did not look at that, no.

18 Q. Okay.

19 The YFD 71, you talk about it in here. Are you a dry dock
20 specialist?

21 A. I am not.

22 Q. Okay. Have you ever been on the YFD 71?

23 A. I have not.

24 Q. Have you ever seen it in person?

25 A. I have not.

1 Q. So anything in your report about the YFD 71 is based on
2 pure speculation, not on expertise?

3 A. It would have been based on what I read in the Moffatt &
4 Nichol report.

5 Q. In the Moffatt & Nichol report. Are you a dry dock
6 engineer?

7 A. I'm not.

8 Q. Okay. So does a dry dock engineer's report make you an
9 expert to opine on the relative condition of various dry docks?

10 A. Only what I read in that report.

11 Q. Okay. Are you an expert on dry dock engineering?

12 A. I am not.

13 Q. Okay.

14 I'm trying to move quickly so we don't waste anyone's time.

15 If you had questions or concerns or you were unclear about
16 the way that the crew logged conditions -- because in your
17 report you talk about it's not clear to you how they made their
18 conditional assessments and entries -- wouldn't it have been
19 useful to you to read their depositions?

20 A. I didn't even know they were deposed, so I didn't have that
21 option.

22 Q. Okay. So you speculated about confusion they might have
23 had without going back to source documents to see if you could
24 answer those questions.

25 A. I speculated about what -- yeah, how I presumed they

1 understood and estimated winds and waves.

2 Q. Your report also addresses forecasts for wave conditions,
3 and I quote, at or near the time of departure.

4 A. Uh-huh.

5 Q. What days did you look at?

6 A. Mostly on the 17th, and I think -- yeah, probably late on
7 the 17th, at that point.

8 Q. Okay. You didn't look at the 18th?

9 A. I didn't, specifically, that I can recall.

10 Q. Okay.

11 So the day that they approached Flattery, and then sometime
12 in the late afternoon, made their decision to go onto the open
13 ocean, you didn't, actually, look at wave forecasts they would
14 have had available that day?

15 A. No, not that particular day.

16 Q. You do notice, though -- you do note -- you talk about buoy
17 data all along the coast, and your conclusion is that the tow
18 went, quote, in and out of recommended conditions --

19 A. Uh-huh --

20 Q. -- on several occasions?

21 A. Yes.

22 Q. Did you note that there were more buoys that the vessel
23 passed that showed waves in excess of ten feet than showed waves
24 below ten feet?

25 A. I forget how I phrase it. It I think I might have said

1 that, yes, in my one paragraph, but --

2 Q. Forgetting how you phrased it --

3 A. Yeah, but --

4 Q. -- both of us forgetting --

5 A. No, no, no --

6 THE COURT: You can't talk over each other. You have
7 to wait.

8 Counsel, let's take our break at this point in time.

9 I'm going to ask our wave expert one thing I've been
10 wanting to know for quite a while, and when we come back, you
11 can follow up, if you'd like.

12 I'm just interested in your opinion, as a wave expert on
13 the reasonableness of an eight- to ten-foot-wave height
14 requirement on a multi-day voyage from Seattle to Ensenada.

15 THE WITNESS: Sir, I think my opinion would be -- and
16 I think as the survey suggested -- it's a recommendation, but I
17 cannot see how it can possibly be a requirement.

18 You certainly -- for a voyage that long, you're outside of
19 a predictive range, so the forecasts -- eventually, you're
20 beyond those. We all know the sea states, the conditions are
21 going to do what they're going to do.

22 So I just don't see how it can be listed as a hard-and-fast
23 requirement, and I don't think it was listed that way. I think
24 it was a recommendation, was the way I interpreted.

25 THE COURT: All right. We'll take our break.

1 (Court in recess 2:39 p.m. to 2:57 p.m.)

2 THE COURT: Counsel, you may continue.

3 Q. (By Mr. Boyajian) Let's pick up where Judge Martinez just
4 finished.

5 So was it reasonable.

6 The *Ocean Ranger* needed -- depending on the testimony we
7 take this week -- five, six, or seven days to get from Cape
8 Flattery down to the San Francisco area.

9 You've heard that testimony?

10 A. I don't recall that, specifically. I think I calculated it
11 was eight days but --

12 Q. Okay. Let's go with eight.

13 So in order to make it from Flattery to San Francisco
14 within the restrictions -- and this is -- I'm not going to
15 quibble with whether those meant significant or they meant
16 maximum, but, either way -- what the *Ocean Ranger* needed was
17 relatively high confidence in eight days of wave conditions that
18 met the restrictions, whichever way they interpreted them.

19 A. I think that's true.

20 Q. Okay.

21 Your report, you don't address any forecasts beyond 96-hour
22 forecasts, right?

23 A. That's right.

24 Q. Those are four days?

25 A. Yes.

1 Q. So that only got them halfway there, on your numbers.

2 A. Right.

3 Q. Okay.

4 And you don't, at all, address the recommendations not to
5 leave Puget Sound without a forecast less than 4-6, right?

6 A. No. You know, I knew at the outset that there was a
7 weather expert, Mr. Pickhardt, working on, sort of, the wind
8 aspects, so, no, I didn't really focus on that.

9 Q. Okay.

10 But there is an associated wave state with Beaufort scale
11 winds, right?

12 A. There can be, yes.

13 Q. And I agree that it's shorthand and it's tied to the wind
14 speed, but what is your understanding of the wave range within
15 Beaufort 4-6?

16 A. That's, actually, a good question, because it, I think, can
17 differ, depending on what particular version of what chart --
18 sea-state table you look at.

19 But I think, as I recall, the one I looked at that, that
20 would be -- I'm sorry, I don't remember the exact number --
21 maybe below nine feet, I think was the number I remember.

22 Q. Okay. So that recommendation, then, was don't leave Cape
23 Flattery without a forecast of wave state less than nine feet.

24 You didn't address the wave forecast, though, for the 18th.
25 We already mentioned that, right?

1 A. That's correct.

2 Q. Did the wave forecasts available on the 17th indicate all
3 waves below nine feet?

4 A. As I saw them, yes, within the zone where they would be,
5 based on my interpretation of the charts and the maps.

6 Q. Okay.

7 You were present when we showed the archived NOAA
8 forecasted weather? We're going to say they were the actual
9 forecasts that were shown, or they were the discussions between
10 NOAA meteorologists that they use to make their forecast.

11 A. Yes.

12 Q. You did see those?

13 A. I did see those.

14 Q. Do you recall that, at least in those discussions, NOAA's
15 meteorologists were predicting waves of ten feet or higher for
16 the coastal waters?

17 A. I'm not sure I recall that, no. I'm sorry. I didn't focus
18 in on that.

19 Q. The record will be.

20 But you recall that we looked at forecasts from the 16th,
21 17th, 18th, and 19th, right?

22 A. Yes, uh-huh.

23 Q. Okay.

24 Do you remember seeing the contract? We've shown it.

25 A. I've seen it several times.

1 Q. I don't expect you to remember every clause, so I'm going
2 to put one up on the screen.

3 Okay. These are the additional conditions. They've been
4 discussed at some length.

5 And it says the tow was dependent on favorable weather
6 conditions. When it says "favorable weather conditions," do you
7 read that as wind and sea conditions within the
8 recommendations of --

9 MR. SIMMS: Objection, Your Honor. This is -- he's
10 not here to interpret the contract.

11 MR. BOYAJIAN: I'm asking about just the definition of
12 "favorable weather conditions" that we can proceed on. He's a
13 weather and wave expert that you brought here and introduced.

14 THE COURT: Objection overruled.

15 Q. (By Mr. Boyajian) And you see here that -- I want to focus
16 on -- right before the break, you gave Judge Martinez an answer
17 that you didn't think it was realistic that Western Towboat
18 could find a window of conditions eight days from Flattery to
19 San Francisco, where they would be able to stay within those
20 recommendations.

21 A. That's correct.

22 Q. Did I heard that correctly?

23 A. Yes.

24 Q. Okay.

25 Is that less likely in late October than it is, say, in the

1 middle of summer?

2 A. Yes. I've looked at, you know, the wave statistics up and
3 down the coast, and, yes, it's less likely in October than it
4 would be in, let's say, July or August.

5 Q. Okay.

6 And you've heard testimony all week from Western's folks,
7 that they are relatively expert in understanding weather
8 patterns and understanding wave conditions, et cetera.

9 Would it seem reasonable that they would know that late
10 October is a difficult time to find eight days of conditions
11 less than ten feet?

12 A. They're the ones that are out there frequently. I don't
13 know what they would be thinking at the time.

14 Q. Okay.

15 More likely that folks who spend their lives on the sea
16 than a guy who sits behind a desk in a shipyard doing drawings
17 would know about that?

18 A. I don't really have an opinion on that.

19 Q. Have you heard testimony from anyone at Western this week
20 that Western told Vigor, This is an unrealistic set of
21 restrictions and we can't possibly do this, especially in late
22 October?

23 A. I don't believe I heard that, no.

24 MR. BOYAJIAN: Okay. Can we go back to that contract
25 clause?

1 Q. (By Mr. Boyajian) The second part: "In the event that
2 conditions do not allow the tow to commence by November 7" -- so
3 we're talking about a tow that started October 17th, right?
4 Late October, until November 7th. "After that, either party may
5 reschedule to more favorable dates in the next year."

6 Would it be more likely that the tow might have been able
7 to find eight days of favorable weather if they had waited till,
8 say, the next summer?

9 A. I would say it's probable if they waited that long, yes.

10 Q. And if they had the whole year of 2017, do you think they
11 could have found a suitable seven- or eight-day window to get
12 from Seattle -- from Cape Flattery down to San Francisco Bay
13 within the conditions that you saw in the recommendations?

14 A. Yeah. I think -- I think they would have to rely on the
15 statistics, because none of the forecasts go out eight days. So
16 they're still hamstrung by the fact that -- at least in the wave
17 field, and I don't know in the weather field -- the wave
18 forecasts only go out 96 hours, or four days.

19 So I don't know what impact that has on the contract
20 language, but I don't think there's really any way that they
21 could have looked beyond four days at a time in terms of the
22 wave climate.

23 Q. Okay. Put it a different way, then: Statically speaking,
24 were they more likely to find a favorable window had they waited
25 until the following June, July, August, than to try and do it in

1 the second half of October or the first week of November?

2 A. Yes.

3 MR. BOYAJIAN: Thank you.

4 REDIRECT EXAMINATION

5 BY MR. SIMMS:

6 Q. I have questions about your calculations.

7 Did you do calculations for your report?

8 A. Yes, I did.

9 Q. And how did you do those? Did you do them in pencil and
10 computer?

11 A. Many of them, initially, in pencil, and then converted them
12 over to computer.

13 Q. And are there some calculations that you would be able to
14 show us that you did?

15 A. Some rough rules of thumb that I used, yes.

16 Q. All right. What are those rules of thumb?

17 A. Well, at the Naval Academy, we teach a course in naval
18 architecture to non-engineers, and one of the topics we cover is
19 hogging and sagging, wave bending moments on rectangular barges.

20 So it's not a difficult calculation to do, in a simple
21 sense. It's not as accurate as a computer model would be, but
22 it gives you a functional relationship, I think, between the
23 different variables that cause the bending moment.

24 Q. Could you do that calculation for us here? We've got a
25 pad.

1 A. Yeah. I'm not sure I could go through the whole
2 calculation, but I know the result in the end. It's easy
3 enough.

4 MR. SIMMS: Your Honor, if you have any questions
5 about how that's done, Dr. Kriebel can show you.

6 THE COURT: I don't.

7 MR. SIMMS: All right. Okay.

8 Q. (By Mr. Simms) So could you ever leave Seattle -- this is
9 from your experience as a wave expert, and looking at what
10 you've looked at -- and guarantee that you will never --
11 regardless of season, never have seas over ten feet? We're not
12 talking about average, we're not talking about -- we're talking
13 about not a single wave, ever.

14 A. Certainly not. I mean, the NOAA wave buoys, most of them
15 have historical statistics available, which I looked at. And
16 there's really not a month that goes by where they're not going
17 to find waves over -- and I'm going to say, roughly, four to
18 five meters. So I think every single month of the year has some
19 chance of getting waves that big, which would be 13, 16 feet,
20 something like that.

21 Q. Was the problem here -- and we've been talking about
22 restrictions. Of course, there were none. It was
23 recommendations and those sorts of things. The testimony is
24 clear on that.

25 But was the problem here not wave height but wave length?

1 A. It's a combination of the two. The simple equation that I
2 was referring to says that, generally, bending moment and the
3 bending stresses and hogging and sagging are proportional to
4 wave height, but then to the vessel length or the ship length
5 squared.

6 So it turns out that, you know, they're -- we would say in
7 engineering -- linearly proportional to the height. So if you
8 double the height, you double the bending stress.

9 On the other hand, if you factor in the length of the
10 vessel and make it longer, that relationship is squared, so it
11 goes up very quickly and increases bending moments very quickly.

12 Q. Now Captain Shaw, apparently, had great confidence in his
13 report; that, you know, if you take this out -- interpreting it
14 as Vigor does -- that no absolute single wave higher than ten
15 feet, everything was going to be okay. Okay?

16 Did you see any indication in your calculations that there
17 was any wave height that would have been suitable for this tow?
18 Is it ten feet, is it fifteen feet, is it eight feet?

19 MR. BOYAJIAN: Objection, please. Your Honor,
20 Dr. Kriebel has testified that he's not an expert in dry dock
21 engineering or dry docks, at all. He's now being asked about a
22 question of would a dry dock be okay in a certain wave height.
23 That's a dry-dock question, not a wave question.

24 THE COURT: The objection to the form of the question
25 will be sustained.

1 Q. (By Mr. Simms) Okay. So let's say that -- knowing what
2 you know about waves and about the length of the dock and the
3 condition of the dock, would you feel that you could make --
4 from a naval engineering standpoint -- that you could make any
5 recommendation about a maximum wave height safe for towing?

6 MR. BOYAJIAN: Your Honor, again, same objection.
7 That's a dry-dock question.

8 THE COURT: Same ruling.

9 MR. SIMMS: Okay.

10 Q. (By Mr. Simms) So you looked at Mr. Naylor's bending
11 moment limits.

12 A. Yes.

13 Q. Okay. So looking at those bending moment limits and wave
14 height -- all right? -- applying those, does that tell you
15 anything about the safe -- if there is one -- height of waves
16 for this tow?

17 MR. BOYAJIAN: Your Honor, we're changing the words
18 but we're still getting at the same fundamental question.

19 He's asking what would the wave height be in which this dry
20 dock could be safely towed. That is, fundamentally, a dry-dock
21 question.

22 THE COURT: Sustained.

23 MR. SIMMS: Okay.

24 Q. (By Mr. Simms) So based on your experience as a naval
25 engineer, if Vigor had come to you saying, Dr. Kriebel, what

1 would you need to know, from your standpoint, to tell us that
2 the one-piece dry dock could be safely towed? What would you
3 need -- and we need to know what the wave height should be.

4 MR. BOYAJIAN: Your Honor, this is the same question.

5 THE COURT: It is, Mr. Simms. Let's move on. Do you
6 have anything else?

7 MR. SIMMS: All right.

8 Q. (By Mr. Simms) Well, do you feel like you would have any
9 qualification to answer that question?

10 A. I do.

11 Q. And why would you have the qualification to answer that
12 question?

13 A. Because bending moments are a fundamental thing in
14 engineering, so it's something that every engineer has been
15 schooled on since sophomore year.

16 Q. And you've taught about them in your fundamental class for
17 people like us who aren't --

18 A. Engineer majors, political science majors. I'm not sure
19 where you fall, but -- but, no. I mean, that's a fundamental
20 thing that's not hard to do. And I think, from my expertise,
21 there really is no ocean problem where you would not want to
22 investigate wave-height conditions, wave-period conditions,
23 wave-length conditions, and wave directions. And I think all
24 those things are going to come into play if you're going to try
25 to calculate bending moments and try to make a recommendation on

1 bending of a dry dock, or anything.

2 Q. And so for this dry dock, if I'm Vigor coming to you, I
3 don't want the bending moment to exceed a certain point, right?

4 A. Uh-huh.

5 Q. What point is that?

6 MR. BOYAJIAN: Your Honor, objection, again. This
7 time twice.

8 It is still a question about the dry dock, even if he says
9 he understands bending moments mathematically; second, and I
10 think more critically, none of these opinions are addressed.
11 There is no foundation for them in Dr. Kriebel's report. His
12 report is about wave heights, and this is a dry-dock question.

13 MR. SIMMS: We've been talking about wave height the
14 whole -- since Monday.

15 THE COURT: No. I understand.

16 Mr. Simms, I get the point, so there's no need to go
17 further down this road. I know exactly what he's saying. Some
18 of us did major in the sciences, even if we have a law degree.

19 MR. SIMMS: Yeah, and some of us just had to stop at a
20 law degree.

21 THE WITNESS: Sir, I have many former students that
22 went on to law as well.

23 MR. SIMMS: All right. Thank you, Dr. Kriebel.

24 THE COURT: Anything further?

25 MR. BOYAJIAN: No. Thank you, Your Honor.

1 THE COURT: You may step down.

2 MR. SIMMS: Calling Dr. Fox.

3 THE COURT: Captain, if I can have you make your way
4 up here to be sworn prior to testifying.

5 BRUCE FOX,
6 having been first duty sworn, testified as follows:

7 THE CLERK: Please state your full name for the
8 record, and spell your name for the court reporter.

9 MR. JARRETT: Your Honor, Vigor has to object to
10 Captain Fox testifying as an expert at all, because his
11 testimony will be entirely duplicative and redundant of
12 Western's previous three designated experts on prudent
13 seamanship, who have testified for a total of more than seven
14 hours of court time in this case.

15 Both Captain Fox, Captain Shrewsbury, Captain Shrewsbury,
16 and Captain McGavock were -- all of those folks were designated
17 as prudent-seamanship experts. So this is just redundant
18 testimony, Your Honor.

19 THE COURT: Mr. Simms, I am kind of curious. What
20 would Captain Fox add -- and I have no doubt about his
21 qualifications -- that we haven't already gotten here?

22 MR. SIMMS: Captain Fox will give a rebuttal to
23 Captain Johnson's report.

24 MR. JARRETT: Your Honor, if I may? Captain Johnson
25 has not yet testified.

1 THE COURT: He hasn't. But what portion of the report
2 would he rebut?

3 MR. SIMMS: He will rebut the portions about the power
4 of the tug. He will rebut the portions about the weather that
5 the tug encountered and their assessment of the go-or-don't-go
6 decision. He will rebut the points about the decisions within
7 the sanctuary.

8 MR. JARRETT: Well, Your Honor, particularly with
9 respect to that last subject, I think that's totally irrelevant
10 to any issue currently before the court.

11 The other three or four subjects that Mr. Simms mentioned
12 were the subject of -- I don't know -- hours of testimony in
13 front of the court during trial. And it doesn't do much to
14 develop the Western theory that those opinions by Western's
15 previous prudent-seamanship experts were correct by putting on
16 another prudent-seamanship expert.

17 MR. SIMMS: Well, let's look at who we're talking
18 about here.

19 MR. JARRETT: Your Honor, if we may have a ruling
20 before we proceed on to testimony from the expert, that would be
21 helpful, from my perspective.

22 THE COURT: Mr. Simms, I don't see what Captain Fox
23 would add to what we already have that would not be cumulative.
24 Yes, I have not heard the other defense expert testify, but
25 maybe if that happens, it might become relevant at that point in

1 time.

2 I understand he's not local. I think he lives in Maryland.
3 There's no reason why we couldn't put him on the telephone, if
4 that were the case.

5 MR. SIMMS: Captain Fox is local -- relatively local.

6 THE COURT: Okay.

7 MR. SIMMS: And I would just tell you, having -- the
8 comments went to Captain Shrewsbury and Captain McGavock and --
9 the two Captain Shrewsburys, and they were relating the facts --
10 those particular facts as they experienced them, in light of
11 their experience.

12 Captain Fox is here to testify, based on his experience,
13 looking at what they did from the standpoint of prudent
14 seamanship.

15 THE COURT: Okay. Then we can put that in the record
16 as your offer of proof. But, as indicated, let's wait and see
17 what the other expert testifies to, and then if you feel it is
18 relevant, then we can bring it up at that point the time.

19 Do you have any other witnesses?

20 MR. SIMMS: We don't, but I want to enter -- we gave
21 Ms. Cuaresma a list of exhibits, and there's just one that
22 should come in, which is -- that's not already in, which is 42,
23 sale agreement with Amaya Curiel. Stipulated; authentic;
24 objection; relevance.

25 And so I think that we've been talking about this, through

1 a number of witnesses, the Amaya Curiel sale agreement, proposed
2 heavy lift. We've entered the testimony of Roberto Curiel,
3 which refers to the agreement and confirms the agreement, that
4 there was an agreement, and so 42 should be entered into
5 evidence.

6 MR. JARRETT: From our perspective, Your Honor,
7 Exhibit 42 does not establish the standard of care for shipping
8 the dry dock.

9 It says that Amaya Curiel originally contracted for it to
10 be shipped. There was testimony about how that arrangement
11 changed. And we can rehash that, but that doesn't seem to be
12 worth the court's time at the moment.

13 The document is just not relevant to any issue that the
14 court needs to decide, from our perspective.

15 THE COURT: All right. I see, by looking at the
16 pretrial order, that 42, the authenticity and admissibility are
17 both stipulated to. It's just a relevance objection. The court
18 will admit it at this point in time and determine whether or not
19 it's relevant when reaching its decision.

20 MR. JARRETT: Thank you, Your Honor.

21 MR. SIMMS: Okay. So what Your Honor has told us is
22 now -- so we're now looking toward next week, Wednesday,
23 Thursday, and Vigor will put on its case.

24 So I think what I've heard is that if Western feels it
25 needs to put on rebuttal witnesses, then we can bring those

1 back. Is that what Your Honor is saying?

2 THE COURT: And you'd have to convince me that it's
3 going to be absolute rebuttal, correct.

4 MR. SIMMS: Uh-huh, yes.

5 THE COURT: But we only have those two days --

6 MR. SIMMS: Understood.

7 THE COURT: -- so --

8 MR. SIMMS: Understood.

9 And if we need to bring them back for rebuttal, then phone
10 would be workable for the out-of-town?

11 THE COURT: If we have someone from out of town that
12 needs to be a rebuttal witness and you can convince me that that
13 rebuttal testimony is appropriate, then we can do it remotely,
14 just like we did with Dr. Hudson.

15 MR. SIMMS: Okay. All right.

16 MR. JARRETT: Your Honor, if I might, can I just speak
17 to the phone witnesses, please?

18 The court found time for us, for which we're grateful. We
19 need to figure out if we can bring our experts back. We may
20 have folks that are not available to be here in person. It
21 worked pretty well to have them by phone. If that's necessary,
22 can we do that?

23 THE COURT: Yes.

24 MR. JARRETT: Okay. Thank you.

25 THE COURT: So long as we have a decent phone

1 connection. You saw what it was like today, with the headset
2 and --

3 MR JARRETT: No headsets.

4 THE COURT: As I think we all learned from our Zoom
5 phase, it is very easy to get interference from multiple sources
6 and how difficult it is and almost impossible for our court
7 reporters to follow.

8 MR. SIMMS: So for Captain Fox, even though he is
9 local, if there is a limited amount of his testimony for
10 rebuttal, would phone work for him as well?

11 THE COURT: I don't see why not.

12 MR. SIMMS: Okay.

13 THE COURT: So I'm assuming we're done for the day?

14 MR. HOWARD: Your Honor, two things. I haven't heard
15 the words "plaintiff rests," but has plaintiff rested?

16 MR. SIMMS: Plaintiff needs to rest.

17 MR. HOWARD: Your Honor, we would make a CR 52(c)
18 motion for judgment on partial findings. We believe that's
19 appropriate.

20 We also know that you can tell me to, basically, submit it
21 in writing, or whatever you want us to do about it, but I
22 believe that the court has heard enough to already know that
23 the -- we'll only argue this right now as much as you want me
24 to, but I believe the court has heard enough to be able to
25 decide the contract case and to be able to decide in terms of

1 both the fault of Western in disregarding the suitability
2 survey, basically, not transmitting it from the port captain, to
3 whom it was appropriately given, to the rest of Western, and
4 proceeding south with weather information based upon wrong
5 numbers for recommendations. And if they could not proceed
6 safely, according to the recommendations, they should have and
7 could have turned around.

8 There's sufficient evidence there to decide the contract
9 case, and that act of negligence, by itself, whether intentional
10 or not, is sufficient to decide the contract case.

11 The evidence is also clear that Vigor was not involved in
12 the decision to turn south at Monterey. Bob Shrewsbury owned
13 that. He owned those decisions. I think I even used the word
14 "own," and he said, "Yes."

15 So we make that motion at this point. I would urge the
16 judge to take it under advisement, if you want further briefing
17 from us on that or proposed partial findings of fact and
18 conclusions of law before we close off today.

19 And before I shut up completely, I want to point out we
20 have a witness here that we would call first, and we would not
21 mind starting.

22 THE COURT: Would you want to call Mr. Naylor?

23 MR. HOWARD: I would think it's a good use of our
24 time.

25 THE COURT: If the defense is ready.

1 Are you ready, Mr. Simms?

2 MR. SIMMS: Am I ready? Sure. He's here. Let's do
3 it.

4 Is Your Honor deferring that motion?

5 THE COURT: In fact, let me make the ruling for our
6 record.

7 I don't think I need to take it under advisement. The
8 court, at this point in time, will deny the motion made by the
9 defense.

10 I think, given the testimony the court has, that there has
11 been sufficient evidence put on the record where the court could
12 decide the issues that are before it, and so, automatically, a
13 CR 52(c) motion, I think, is inappropriate at this point in
14 time. It will be denied.

15 MR. HOWARD: Thank you, Your Honor.

16 THE COURT: All right.

17 Mr. Naylor, good afternoon. Please raise your right hand
18 to be sworn.

19 MICHAEL NAYLOR,
20 having been first duly sworn, testified as follows:

21 MR. SIMMS: Your Honor, just as we got at the
22 beginning of Dr. Kriebel's testimony, what the parties agreed to
23 is that they put the expert reports in the record, and the court
24 has held that Vigor is not permitted to have testimony exceed or
25 go beyond the expert report, and also that there would be no

1 rebuttal that Vigor could be able to offer, and so there is no
2 reason to hear this testimony.

3 THE COURT: Mr. Howard?

4 MR. HOWARD: Your Honor, Mr. Naylor -- who is also a
5 fact witness who's been relied upon in terms of several
6 witnesses have been relying upon Mr. Naylor -- I think should be
7 given the opportunity to respond to other people's
8 characterization of the work he did, both factually and as an
9 expert.

10 His report seems to keep coming up in this case, and I
11 think he should be given a chance to explain other people's
12 constructions and misconstructions of it.

13 MR. SIMMS: Your Honor, I think your ruling was very
14 clear.

15 And, in fact, Mr. Naylor, even though the court accepted
16 his report late, had, in his report, rebuttal of Dr. Hudson and
17 Dr. Kriebel. And so we have that in evidence here, even with a
18 rebuttal that the court later said wouldn't be permitted, and
19 the court has held that that is the extent of the expert
20 testimony that would be allowed from Vigor, the Vigor reports,
21 not further rebuttal.

22 THE COURT: Counsel, let me point out to both sides
23 that you both missed deadlines in terms of discovery, experts,
24 and things like that, and tried to strike the other side's. I
25 remember going through all that.

1 My concern, in this particular case, is that there is
2 information that, I think, would be useful to the court in
3 trying to decide the very few issues in front of me, not only
4 the other side issues that have been addressed, but the ones
5 that are in front of me.

6 Today, the last day, has, actually, been illuminating in
7 terms of what's been presented to the court, given what we've
8 had up till now.

9 Mr. Naylor is here. Let's go ahead. And, Mr. Howard, put
10 in whatever pertinent parts you believe. Mr. Simms is correct,
11 his report is in the record. If there's something specific,
12 let's see if we can get it done today.

13 MR. HOWARD: Okay. And, Your Honor, I'm going to do
14 this in an unusual order, because I wanted to deal with recency
15 first, so this might almost sound like a cross-examination. Has
16 he been sworn?

17 THE CLERK: He has been sworn.

18 MR. HOWARD: Okay. Thank you.

19 THE CLERK: Please state your name for the record, and
20 spell your last name.

21 THE WITNESS: Michael Naylor, N-a-y-l-o-r.

22 THE COURT: Mr. Naylor, please listen carefully to the
23 questions. Please don't speak over counsel; it's impossible for
24 our court reporter to transcribe. If you don't understand
25 something, just say so.

1 | You may inquire.

2 DIRECT EXAMINATION

3 BY MR. HOWARD:

4 Q. I'm going to ask one or two minutes of foundation questions
5 about your experience, Mr. Naylor.

6 In general, is your experience listed in your resumé, which
7 is part of your report?

8	A. Yes.
---	---------

9 | Q. Where are you employed?

10 | A. At Heger Dry Dock.

11	Q. In what capacity?
----	----------------------

12 | A. I'm principal engineer.

13	Q. What type of engineer?
----	---------------------------

14	A. Structural marine engineer.
----	--------------------------------

15 | Q. Are you licensed as an engineer?

16 | A. In many states.

17	Q. What does Heger do?
----	------------------------

18 A. We specialize in the design, inspection, certification of
19 mainly steel-floating dry docks, but we also deal with steel
20 caisson gates on grating docks and other docking calculations.

21 | Q. What's a steel caisson gate?

22 A. It's the floating steel closure wall to a grating type of
23 dry dock.

24	Q. Ground-based?
----	------------------

25 A. In the ground, different than the dock we've been talking

1 about today.

2 Q. Which is a floating dry dock?

3 A. That's a floating dry dock typically made of steel.

4 Q. And to clarify, do you understand you have a role in this
5 case both as an eyewitness of some things, but also have we
6 retained you as an expert?

7 A. I do understand.

8 Q. And are you paid for your time to be here?

9 A. I am paid.

10 Q. I want to move to part of your report that's been discussed
11 a few times today. Do you see on the screen Figure 7 of your
12 report?

13 A. Yes, I do.

14 Q. Could you briefly explain to the court, in your words, what
15 this reflects and represents?

16 A. Yes.

17 So this is a plot of the dry dock in a one-piece
18 configuration. I recreated the condition of departure for the
19 dock from Seattle, and I put it through a computer model with a
20 series of different waves applied to it, wave conditions, and
21 this graph shows the waves that you'd expect in a sea state five
22 condition.

23 Now, wave lengths in a fully developed sea state five are
24 typically a little bit shorter than the dry dock, but I also
25 looked at waves that are the same length as the dry dock,

1 because that does produce the worst-case scenario.

2 Q. Is that what the last witness was just discussing, in terms
3 of length of the wave?

4 A. Yes. Dr. Kriebel was accurately describing that when the
5 wave length equals the length of dry dock, that produces the
6 worst-case scenario for bending moments, you know, causing
7 flexure of the dock. Waves that are shorter and longer than the
8 dark aren't nearly as critical in terms of longitudinal
9 strength.

10 Q. Now, did you, using the computer, did you personally do the
11 math for what's reflected on this chart?

12 A. Yes, I personally ran all the inputs into that computer
13 model.

14 Q. What does this chart show?

15 A. This chart is a chart of the bending moments at each
16 location along the dock for various different waves. I also
17 looked at waves that would produce a sag, which that's causing
18 the center of the dock to deflect downwards, and I looked at
19 waves that would produce a hog. So that's when waves are
20 located at the midpoint of the dock, the center point, and that
21 causes the ends to go down.

22 Q. Now, you had heard another engineer today suggest that you
23 only calculated this based upon the center section, and did not
24 include the two end sections. Do you recall that testimony?

25 A. I do recall.

1 Q. Is that accurate?

2 A. That is inaccurate. The testimony implied that I did not
3 look at the bending moments in the end sections. And while they
4 are not zero, they are very near zero. And you'll see that, in
5 my graph, I am showing bending moment across the bolted
6 connection, which is indicated by about, you know, Frame 5 or
7 Frame 55 on the X axis of the graph.

8 Q. And at the bottom here, did you superimpose at the bottom?

9 A. Yes, I superimposed the dock as I model it in the computer
10 program.

11 Q. And that's what was referred to as the video-game-type
12 pieces? I'm suddenly blocking on the video game, but the
13 video-game-type pieces earlier today?

14 A. Yes. These sections are all bolted together in one piece.

15 Q. And just to be super clear on this, toward the end, on the
16 right side, even though your colors disappear, you ran the
17 numbers for that distance, also; is that correct?

18 A. That is correct. The dock is 528 feet long in the computer
19 model.

20 Q. Does it make a difference that those ends are bolted on for
21 the purpose of these calculations?

22 A. It does make a difference. It does increase the bending
23 moment in the center section when those end sections are bolted
24 on to a center piece.

25 Q. And that's what's reflected in this?

1 A. That's reflected in all my calculations.

2 Q. What about the fact that it's bolted?

3 A. I did look at that. I compared the bending moments that
4 were produced across the bolted connection, and I compared that
5 to the design drawings of the YFD 69, 70, 71, that have all been
6 discussed. And especially for this sea state, number five, the
7 bending moments across the bolted connection are significantly
8 less than the bending moment you would expect to see when
9 lifting a designed vessel for this dock, which is about 14,000
10 or even as high as 17,000 tons.

11 Q. I'm going to back off because I'm, actually, fairly new to
12 this, and I want to make sure that -- when you talk about
13 lifting, are we talking about something completely different
14 than towing?

15 A. Yes. The design drawings of the dock have graphics that
16 indicate the stresses you'd expected to see in the dock
17 structure when lifting a capacity vessel, and that information
18 is how I evaluated the strength of the bolt to see if it was
19 adequate for this wave state.

20 Q. Did you have an understanding as to how recently this dry
21 dock had been in use before this time period?

22 A. When I wrote my report, I relied on information that was
23 available to me, one of them being some conversations with Dan
24 Keen, who told me that the dock was in use in 2015 to lift a
25 tug, and the dock was NAVSEA certified until 2013.

1 Q. Now, while we're clarifying some points regarding how the
2 other engineer reviewed your report, were you able to determine,
3 from that expert's report, any of his calculations?

4 A. I could not see any calculations that were done in his
5 report to evaluate the strength of the dry dock in an oceangoing
6 condition.

7 Q. Do you, as an engineer --

8 MR. SIMMS: Your Honor, this is rebuttal, and the
9 court has ruled that there is no rebuttal.

10 MR. HOWARD: Your Honor, Your Honor, I think this is
11 useful testimony, based upon clarifying attacks on his report
12 today.

13 MR. SIMMS: Your Honor, Western disclosed its reports
14 on time.

15 And Your Honor said that Western had missed deadlines. I,
16 respectfully, tell you that we did not miss any deadlines. We
17 submitted the reports when we were supposed to, which triggered
18 the time for timely rebuttal reports to be submitted. There
19 were not timely expert reports submitted by Vigor, and there
20 certainly is a well-missed deadline for rebuttal reports, so we
21 object to this testimony. It's, actually, rebuttal on rebuttal.

22 MR. HOWARD: Two rebuttals allowed in the rules, Your
23 Honor.

24 THE COURT: Mr. Howard, I'll sustain the objection.

25 MR. HOWARD: Thank you.

1 Q. (By Mr. Howard) I'm going to move back to my original
2 outline, which we haven't been following.

3 And I don't think we'll finish today, for which I
4 apologize, but I'm glad we get a chance to start.

5 Have you had a chance, in person, to inspect -- I'll just
6 shorten it to the number -- the 69?

7 A. I do inspect and I currently certify the 69, personally.

8 Q. You put that in the present tense.

9 A. Yes. You're talking the 69, before departure?

10 Q. How long have you been inspecting and certifying the 69?

11 A. My company has been inspecting it for quite some time now.
12 When it was at Portland, Oregon, we inspected it routinely and
13 certified the dock there.

14 We were involved in the relocation of 69 from Portland to
15 Seattle, and we continue to routinely inspect the dry dock and
16 certify it if its condition so warrants.

17 Q. Now, you said your company. In terms of the transfer from
18 Portland -- prior to the transfer from Portland to Seattle, were
19 you personally involved that?

20 A. I was personally involved in the structural analysis, yes.

21 Q. Could you explain what that means, you being personally
22 involved in the structural analysis?

23 A. So we were asked to perform some loading conditions on the
24 dock before the -- in the same manner that I made the report for
25 the YFD 70. I made a computer model of the YFD 69, and we

1 evaluated the strength in one-piece configuration. We also
2 evaluated the strength with one end section removed, and both
3 end sections removed and stacked on the center section.

4 Q. Now, there was testimony by another expert that Heger
5 recommended the end pieces be removed for tow. Did Heger make
6 such a recommendation?

7 A. Heger never recommended the end pieces be removed for tow.

8 Q. What did Heger do?

9 A. So there's been a lot of talk about the work specification,
10 which presented that as something to be done. I believe that
11 precluded -- or was before we did our structural analysis of the
12 one-piece configuration, and we presented the options to Vigor,
13 and we didn't make any recommendations for which of the three
14 configurations we analyzed for the -- which configuration was to
15 be executed. We just provided what we thought was the
16 appropriate sea state for that configuration.

17 Q. And that was part of one of those two reports?

18 A. Yes. The analysis report is what I'm referring to, and a
19 lot of reference has been made to the work specification
20 document, which was more -- the tone of that document was more
21 to get the dock ready to be useful in Seattle, performing
22 things, like installing moorings on the dock, painting the dock,
23 things you'd need to be useful to lift a ship out of water in
24 Seattle.

25 Q. So translating to lay people -- and I don't want to put

1 words in your mouth. But translating to layperson's -- for
2 me -- terms, what was the purpose of the work specification
3 report referred to by the other expert?

4 A. That document was all the things that we discussed with
5 Vigor on how to modify the existing dock to be useful at
6 Seattle.

7 Q. As a dock?

8 A. As a dock for lifting ships.

9 Q. Did it have anything to do with towing?

10 A. No. There was sections that discuss towing, but the
11 document was more to highlight all the work that needed to be
12 done to modify the dock.

13 Q. And was the second report, did it have anything to do with
14 towing?

15 A. Yes. It was all the structural analysis regarding tow.

16 Q. And did Heger reach a conclusion regarding the 69 and the
17 structure of the 69, as to whether it was suitable to be towed
18 in one piece from Portland to Seattle?

19 A. Yes. Our report says that the dock was capable up to the
20 lower end of a sea state five.

21 Q. Structurally, are you familiar with the specifications for
22 the 70?

23 A. I'm not exactly -- the specifications? What do you mean?

24 Q. Structurally, do you have enough information to inform the
25 court as to whether there's any difference between the 69 and

1 the 70?

2 A. It's my understanding that those two docks have the same
3 structural hull design.

4 Q. Okay. And since we'll make reference to the 71, how about
5 that one?

6 A. That also is the same structural design in terms of the
7 hull.

8 Q. When you say "structural design," does that include the
9 inside?

10 A. The plating, the stiffeners, the transverse frames, the
11 length, the width, the end sections, that's all the same.

12 Q. Now, you say you are still inspecting the 69?

13 A. That's correct.

14 Q. Why is that?

15 A. When you're asked to certify it every year or every two
16 years, and we perform inspections of it, we crawl all the tanks,
17 we submerge the dock, or we watch Vigor submerge the dock and
18 operate all the mechanical systems, and if everything operates
19 to our satisfaction and we don't think there are any structural
20 issues with the hull, we'll issue a certificate of capacity for
21 what we believe is the maximum limit of a vessel to be docked on
22 the dock for ship repair.

23 Q. Is Vigor required to do that to do use the dock?

24 A. I believe their customers require that.

25 Q. Do you have personal knowledge if the same procedure was

1 regularly done? Was it done for all their dry docks, to your
2 knowledge?

3 A. I know that we certify almost all of Vigor's dry docks.

4 Q. Now, you personally never had the opportunity to certify
5 the 70; is that correct?

6 A. Right. As a company, we did not inspect or certify the 70.

7 Q. Do you have information as to whether or not the 70 had
8 been certified?

9 A. My understanding is that NAVSEA certified the dock.

10 Q. And what is NAVSEA?

11 A. NAVSEA is a government agency, and you need their
12 certification in order to dock a Navy warship on the dock.

13 Q. And do you have an understanding as to whether the 70 was
14 used for Navy warships?

15 A. I don't have an understanding for what Navy ships, vessels
16 were docked on it, but given that it had NAVSEA certification,
17 it was certainly capable of docking Navy vessels with whatever
18 restrictions NAVSEA placed on that certification.

19 Q. Are all dry docks capable of being NAVSEA certified?

20 A. No.

21 Q. Why not?

22 A. NAVSEA has very strict requirements for what the dock needs
23 to be capable of. To meet NAVSEA certifications, you have to
24 produce binders of calculations justifying the capacity of the
25 dock and its capabilities. You have to have binders of

1 procedures and maintenance programs for the dock. You have to
2 have qualified people that maintain the dock and operate the
3 dock.

4 And you have to adhere to all those procedures and
5 maintenance requirements inside of that binder, which is
6 referred to as the facility certification report, and NAVSEA
7 will come and audit the facility every three years to make sure
8 things are tracking correctly.

9 Q. Can a World War II vintage dry dock maintain NAVSEA
10 certification without significant, ongoing maintenance?

11 A. In my opinion, no.

12 Q. Now, before I move on to the 70 further, there's been
13 discussion about the 71.

14 What is the basis of any knowledge you have about the 71?

15 A. I've inspected the 71 two or three times.

16 Q. Why have you inspected it?

17 A. We were asked -- similar to what we do for Vigor -- to come
18 down, inspect the structure, watch the dock operate it, and
19 certify it if we think the conditions so warrants.

20 Q. Did you certify it?

21 A. We certified it twice, I believe.

22 Q. The third time?

23 A. The third time, they had not done all the maintenance that
24 we requested they do in the timeframe that we requested it to be
25 done in, so we rejected. Once we surveyed the dock and found

1 out it was in poor condition and the maintenance had not been
2 done, we refused to certify the dock.

3 Q. I'm going to step aside and ask a foundation question I
4 meant to ask earlier.

5 You heard me ask the other engineer what "forensic" meant.
6 Do you know what "forensic" means?

7 A. I do.

8 Q. How many times have you testified as an expert?

9 A. This is my first.

10 Q. So how much of your work is forensic?

11 A. None of it, until this point.

12 Q. What do you do all the time?

13 A. Mainly designing docks. That really keeps us busy for most
14 of the year, as we like to have one big dock-design project, and
15 the filler work is really these inspections and these special
16 jobs for designing mooring systems for docks or docking plans
17 and helping support our clients in any way we can.

18 Q. Now, I know that we're going to disrupt your plans,
19 possibly, to finish this, but what are you scheduled to do next
20 week?

21 A. I'm supposed to be in Alabama inspecting a dry dock.

22 Q. For certification?

23 A. For certification.

24 Q. I'd like to go to the 70, and I want to ask a term -- this
25 is for background knowledge for this Navy-built.

1 What is damage stability?

2 A. So this is, actually, another reason why not all docks can
3 meet NAVSEA certification. Docks that are in the NAVSEA
4 program, as one of the calculations you have to do, you have to
5 show that with your biggest, largest-capacity vessel on the
6 dock, that you can damage a certain number of tanks, and that's
7 not going to jeopardize the safety of that vessel in dock.

8 So you may damage four tanks and the dock is still going to
9 float, and it's still going to float with a certain attitude.

10 Q. "Attitude," meaning?

11 A. The rules are stated that you can't have a heel of more
12 than 15 degrees, you can't have a trim of more than 20 feet
13 along the length of the dock, and then there's this thing called
14 the margin line, which is defined as three inches below the top
15 deck, you can't submerge to that point.

16 Q. Okay. Unlike Mr. Boyajian, I'm not a mariner. The judge
17 might be. But what's heel and trim in this context?

18 A. So trim is in the longitudinal forward and aft direction of
19 the dock. Any difference between the forward and aft end is
20 called trim.

21 Heel is when the dock changes floating attitude in the
22 transverse direction perpendicular to that, where the port side
23 or the starboard side is lower in the water.

24 Q. Now, while I'm still on -- I'm bouncing back and forth
25 because of things that were said today.

1 I want to ask you about Heger's manual. A copy was shown
2 on the screen the other day. Does Heger have a dry dock manual?

3 A. We do.

4 Q. What's its purpose?

5 A. Its purpose is for training people who are, generally, new
6 to the industry or to the dry-docking practice. The basic
7 concepts for dry docks -- the basic concepts you should know for
8 dry docks or docking ships.

9 Q. Does Heger consider it an authoritative document?

10 A. No. It's a training aid.

11 Q. Does it even address the type of dry dock we're dealing
12 with here?

13 A. I don't believe so.

14 Q. There has been repeated times where different types of
15 structures have been discussed, and this will go to an
16 assumption you made in your report, but I want you to explain
17 the significance of the different areas.

18 You assume 15 percent corrosion in certain areas and 40
19 percent in others.

20 Can you describe to the court, in your words, not only why
21 but the significance of the different areas and why that matters
22 for the calculations you did?

23 A. Yeah.

24 So in our experience in dealing with a number of different
25 dry docks across the country that are of this age or -- and in a

1 condition that we saw in the photographs, that the pontoon deck
2 is the first structural element to go.

3 When you lift a ship out of the water and production --
4 ship repair -- is ongoing on that vessel, that's where all the
5 work is being done.

6 You have glass grit flying around and accumulating on the
7 deck. You have vehicles driving over that glass grit, sanding
8 that pontoon deck down. You have water sitting on the deck,
9 saltwater. Every time you operate the dock, it captures
10 saltwater. It sits there till it evaporates.

11 So it's not uncommon for a pontoon deck to only last 20
12 years until you need to replace it. If you maintain it better
13 than that, it can last a little bit longer. But for every dock
14 design we do, we assume the pontoon deck to be 25 percent
15 corrosion, and we recommend repairs be made at that point.

16 That's the element most susceptible to our design -- or to
17 a dry dock in use. We assumed it was 40 percent in our report
18 because we believe that to be a conservative assumption based on
19 what we were seeing in the photographs. Some of the data from
20 the 2013 UT report, it supports that. And it wouldn't surprise
21 us if the pontoon deck was beyond its useful life when the YFD
22 70 was towed.

23 Now for all other elements of the dock, we've designed
24 docks with 10 to 15 percent general corrosion allowance, is what
25 we call it, where we -- you know, when we do our designs, we

1 already build in to the fact that that dock may be 10 or 15
2 percent corroded at some point in its life. And, you know, in
3 our opinion 15 percent is kind of the upper end of a dock in
4 terms of corrosion amounts when it's nearing the end of its
5 useful life.

6 You're more likely to see corrosion, you know, on the
7 pontoon deck, but also in the wind/water strake, which is three
8 feet, plus or minus, above and below the pontoon deck. That's
9 where all the waves are always crashing into the side of the
10 dock. It's -- you know, the wind is blowing saltwater onto the
11 steel in that area of the dock, so that corrodes pretty quickly
12 as well.

13 But, in general, things that are important to longitudinal
14 strength, like the pontoon bottom and the top deck, you know,
15 the pontoon bottom is always submerged underwater, so it doesn't
16 oxidize. The top deck is always dry, far away from the salt
17 spray, so those structural elements don't corrode as quickly.

18 Q. Going back to the beginning of this, with the 40 percent
19 corroded area where the work is done, you used the term
20 "longitudinal strength."

21 What relevance does that area have to what you called
22 longitudinal strength for the dry dock?

23 MR. SIMMS: Your Honor, this is in his report. It's
24 repeating -- we weren't permitted to repeat parts of reports,
25 and neither should this be permitted.

1 MR. HOWARD: Just trying to make sure things are
2 clarified after -- there have been a lot of contradictory
3 testimonies. I'm trying not to ask too many things that are,
4 actually, directly in the report, but an explanatory -- a full
5 explanation here will be helpful to the court.

6 THE COURT: All right. You may answer.

7 A. So when we do a -- it's called a section modulus
8 calculation through the cross-section of the dry dock. We
9 develop what's called a neutral axis.

10 So Dr. Kriebel was explaining correctly that the top deck,
11 when the dock goes into sag, it goes into compression; when it
12 hogs and bends the other way, it goes into tension, and the
13 reciprocate of that is happening at the pontoon bottom.

14 Now the neutral axis is the zero stress point as the dock
15 goes into bending, where there's no stress and strain in the
16 dock, and that neutral access falls at the pontoon level for all
17 dry docks.

18 Q. (By Mr. Howard) And I wanted to ask a very specific
19 clarifying -- you've seen, obviously, the report from the other
20 engineer who testified earlier, and I just want to show you the
21 pictures he showed, in 17, to ask you the --

22 MR. SIMMS: Same objection, Your Honor. He had --

23 MR. HOWARD: I haven't even finished my question.

24 MR. SIMMS: -- the Hudson report. His report was
25 after this one. He's already submitted rebuttal in his report.

1 The court said no rebuttal permitted. This is rebuttal. This
2 is what he could have commented on had there been a rebuttal
3 report timely submitted in response to our timely submitted
4 expert report.

5 MR. HOWARD: Your Honor, I haven't finished my
6 question.

7 THE COURT: Please.

8 MR. HOWARD: And I believe the point of my question is
9 to let this witness explain to you what this structure relates
10 to. Because the pictures are not necessarily self-evident, and
11 he can tell you what part of the structures these are. That's
12 the whole point of my question.

13 THE WITNESS: So explain --

14 MR. HOWARD: I haven't heard a ruling yet, actually,
15 so don't talk until he's ruled.

16 THE COURT: You may respond. Go ahead.

17 MR. HOWARD: Okay. Thank you.

18 A. So by this picture is the transverse frames and the
19 transverse bulkhead in the dock. In the second picture, that's
20 the transverse bulkhead. It's a watertight boundary between
21 tanks. The first picture, Figure 3 there, is more depicting the
22 transverse frames of the dock. And, you know, while they need
23 to be there for the dock to not fall in on itself, they don't
24 contribute to the longitudinal strength of the dock. They're
25 vital when lifting a ship out of the water. That contributes to

1 all the transverse strength in the dock.

2 And I do agree that there's some corrosion occurring on
3 these members, but you can't tell, by looking at the picture,
4 how much corrosion there is there.

5 Q. (By Mr. Howard) Why not?

6 A. If I could, I could charge you a lot of money.

7 The Navy requires everyone that's in the NAVSEA
8 certification program to UT their structures every five, every
9 ten years to determine how much thickness there is there,
10 because you can't tell from looking at it.

11 Steel expands to be 16 times its original size when it
12 scales off. So when something looks bad, it doesn't necessarily
13 mean that it is bad.

14 Q. There's been discussion here about the Navy Tow Manual.
15 This is not specifically in your report.

16 Is the Navy Tow Manual something you rely upon in your
17 practice?

18 A. We don't rely upon it very often.

19 Q. Why not?

20 A. It's my understanding that the Navy Tow Manual is for
21 Navy-owned vessels, and we don't deal with Navy-owned vessels
22 very often.

23 Q. In your time of practice, have you seen other three-piece
24 docks be towed as one piece?

25 A. I haven't personally seen them being towed in one piece,

1 but I --

2 MR. SIMMS: Objection; hearsay.

3 THE COURT: The objection will be sustained.

4 Q. (By Mr. Howard) Are you familiar, from your practice and
5 investigation as a dry dock engineer, with the transport of
6 other dry docks?

7 A. I am.

8 Q. Is that part of your practice and information that you rely
9 upon as an expert in this field?

10 A. Yes.

11 Q. Are you, from that, aware of other three-piece dry docks
12 being towed?

13 MR. SIMMS: Objection; hearsay.

14 THE COURT: Overruled.

15 You can answer.

16 A. Yes, other three-piece dry docks have been towed in one
17 piece.

18 Q. (By Mr. Howard) Does that include the 71?

19 MR. SIMMS: Basis of his knowledge.

20 THE COURT: Overruled.

21 MR. SIMMS: Other than what someone told him.

22 THE COURT: How do you know this?

23 THE WITNESS: I know it from working with people in
24 the industry.

25 MR. SIMMS: Hearsay.

1 THE COURT: Overruled.

2 You may answer.

3 A. I know, from working with people in the industry, that the
4 YFD 71 was towed in one piece from San Diego to San Francisco.

5 Q. (By Mr. Howard) Are there docks that you're familiar with
6 on the East Coast that were towed -- three-piece docks towed in
7 one piece?

8 A. Yes.

9 Q. Have you ever heard in the industry, in the time you've
10 been practicing the last how many years?

11 A. Ten years.

12 Q. In the last ten years, have you heard of a three-piece dock
13 being towed with the outside pieces being put on the center
14 piece?

15 A. So our docks are three-piece and designed like that, in
16 some instances, when the docks get up to 800, 900 feet long, but
17 like the Harris-type docks, the World-War-II-type docks, I don't
18 know any of them towing them with the midsections stacked on the
19 mid-body.

20 Q. You've used the term "Harris-type dock." Can you explain
21 what a Harris-type dock is?

22 A. Harris is the name of the engineer that designed these
23 docks for the Navy. This was, kind of, his signature, if you
24 will, to have a self-docking-type dock with smaller end sections
25 that can be docked on the center section, and, actually, the end

1 sections could be submerged below the center section and lift up
2 the center section out of the water for maintenance reasons. So
3 there's a high number of these type of docks built in that era,
4 and it's coined as the Harris-type dock.

5 Q. Are many still in use?

6 A. There's a few of them, yes.

7 Q. Including, obviously, the 69.

8 A. Yep, the 69 is one of them.

9 Q. Your opinion on how this failed is in your report; is that
10 correct?

11 A. Yes, I did form an opinion.

12 Q. And you've gotten to hear some testimony today. Has
13 anything changed, in your opinion, about how this failed as
14 described in your report?

15 A. Nothing's changed.

16 Q. With respect to the earlier storms, do those play a role in
17 the failure?

18 A. It's potential that they could have played a role.

19 MR. SIMMS: Objection. It's not in his report.

20 MR. HOWARD: Your Honor, the specific issue was raised
21 by counsel in asking other witnesses, and I'm giving him a
22 chance to clarify, based upon questions counsel has raised.

23 MR. SIMMS: It's rebuttal, and he had a chance to put
24 this rebuttal in his report after -- it was late, and
25 Dr. Kriebel said when it happened, and there was an opportunity

1 to make a comment about whether there was damage before. This
2 is rebuttal on rebuttal.

3 THE COURT: Sustained, Mr. Howard.

4 Q. (By Mr. Howard) Could a tree have taken this out?

5 A. In my opinion, it would be unlikely.

6 Q. Why?

7 A. The dock had inherent damage stability designed into it, so
8 it would take a serious number of tanks to submerge it, and it
9 wouldn't sink unless the upper portions of the wing wall were
10 also damaged.

11 Q. Were the Bowditch restrictions -- Captain Shaw's
12 restrictions that you've reviewed appropriate for --

13 MR. SIMMS: Objection. This is also in his report.

14 MR. HOWARD: It's a foundation question for the
15 follow-up question to clarify -- I think the judge's question
16 asked about whether or not this could be safely towed.

17 THE COURT: Mr. Howard, how much more do you have for
18 this particular witness?

19 MR. HOWARD: Your Honor, trying to avoid duplicating
20 anything that's actually in the report, I probably have about
21 ten minutes. If you want, I will stop now and give him some
22 cross with the right to recall him next week for anything we
23 don't cover.

24 MR. SIMMS: I'd rather they finish.

25 MR. HOWARD: I'm trying hard to cut portions out of my

1 outline that are covered in the report. That's why I stop
2 occasionally and skip something.

3 THE COURT: All right.

4 MR. HOWARD: I'm also trying to give him a chance --
5 I'm sorry, Your Honor.

6 THE COURT: I was going say, he's supposed to be in
7 Alabama to do his job. I like the fact that this is the first
8 time he's testified, so he's getting some experience here, and
9 that's something positive for him. I would like to be able to
10 get him to Alabama to do that.

11 Mr. Simms, how much cross would you have?

12 MR. SIMMS: Twenty minutes.

13 THE COURT: All right.

14 Mr. Howard, why don't we move right to the most pertinent
15 part.

16 MR. HOWARD: Okay.

17 Q. (By Mr. Howard) Would damage be cumulative between storms,
18 in your opinion?

19 A. Yes. Damage in one storm and damage in another storm, the
20 damage would still exist.

21 Q. If the Bowditch restrictions had been followed, could this
22 have safely made it to Ensenada?

23 A. In my opinion, yes.

24 Q. Dynamic versus static. There's only been a little bit of
25 discussion, but I want to give you a chance to explain to the

1 judge the difference between those analyses that you, as an
2 engineer, perform --

3 MR. HOWARD: This isn't an opinion, Your Honor. This
4 is background for analysis of the testimony you're hearing.

5 A. A description of static versus dynamic?

6 Q. (By Mr. Howard) What you're doing when you're calculating
7 these things, dynamic versus static forces.

8 A. My analysis is strictly static, which means that I assume
9 everything to be at rest at a snapshot in time when I do my
10 stress analysis.

11 Q. And in layperson's terms, you look at the analysis when the
12 wave is in midpoint, for example --

13 A. Yeah.

14 Q. -- or at end; that's what you mean by "static"?

15 A. That's correct, for the moment in time where the wave
16 crests are at the end or at the center of the dock, is how I do
17 my analysis.

18 Q. The term "slamming," which is hitting the dry dock in
19 front, are you familiar with that term?

20 A. I am.

21 Q. Is that a dynamic or a static force?

22 A. That's, in my opinion, a dynamic force of acceleration of a
23 mass, being the water, into the front edge of the dry dock.

24 Q. Was that something you calculated or considered in your
25 report?

1 A. It's not. Dynamics is a little bit outside of my area of
2 expertise.

3 Q. Would slamming help for the condition --

4 MR. SIMMS: Objection. He said that he has no
5 expertise in this, it's not involved in what he analyzed.
6 There's no indication there is qualification to respond to that
7 question.

8 MR. HOWARD: Actually, I'll ask a different
9 foundational question.

10 THE COURT: Thank you.

11 MR. HOWARD: I'll withdraw that one.

12 Q. (By Mr. Howard) Why do people not ask you for
13 dynamic-force analysis?

14 A. We've been asked, but we say that -- we defer them to other
15 experts in the industry who are more well suited to perform
16 dynamic-type analysis. It's pretty specialized.

17 Q. And that's an area that can also cause damage, but it's an
18 area you don't calculate?

19 MR. SIMMS: Objection. No qualification that he
20 says -- it's outside of his expertise. Objection to the
21 question will it also cause damage.

22 THE COURT: The objection will be sustained.

23 Q. (By Mr. Howard) So that's just something that, whether it
24 has an impact or not, it's outside of the area you're opining
25 for the cause here?

1 A. Correct.

2 Q. Your corrosion assumptions have been attacked in this case.
3 You saw the photographs that the other engineers saw. Do you
4 believe your assumptions are accurate?

5 A. I do.

6 Q. Why?

7 A. For starters, 15 percent is an average. There's places in
8 the dock that are better and worse than 15 percent, I'm sure.
9 15 percent, you know, is not a greater number, in terms of dry
10 docks, but it does indicate that the dock was corroded.

11 But the strength -- if you have one spot in the dry dock
12 that's 25 percent and one spot that's 5 percent, that stress
13 through that area is going to distribute, and the structure has
14 reserve capacity. So 15 percent, as an average, it's not saying
15 the dock is in good condition, and that's what I believe it to
16 be in, looking at the photographs.

17 The most critical components to longitudinal strength of a
18 pontoon bottom and the top deck, you have, primarily, the top
19 deck, and looking at the photographs, you know, that area of
20 dock was probably not corroded at all, or well below 15 percent,
21 as an average.

22 So I think 15 percent is a good number.

23 There's also been a lot of attack on, you know, this only
24 being 5 percent more corroded than YFD 69. We knew 69 was in
25 very good condition. We inspected it. Our thought was, at the

1 time when we did the calculation, is that it's probably zero to
2 5 percent corroded, but we used 10 percent to be extra
3 conservative.

4 So when you compare my conservative assumption for
5 calculations on the 69 to the actual condition of the 69,
6 that's, kind of, apples to oranges.

7 Q. How about 71? We've heard an expert testify that the 70
8 should be likened to the 71. You've seen the 71. Are they
9 comparable?

10 A. The 71 is in significantly worse condition than 69 --

11 Q. -- the 70?

12 A. Yes, the 71 is much worse condition than the 69. When I
13 inspected it, stiffeners were disconnecting from the side shell
14 of the dock. There were holes in the pontoon dock. Many of
15 them, hundreds. There were holes in the side shell of the dock.
16 In that wing wall line, which I talked about, it had high
17 susceptibility to corrosion.

18 It's not in good condition, you know, currently, especially
19 when they did -- when GHD did their analysis of that dock, and
20 when GHD did their analysis of the dock, I read their reports.
21 I don't think they inspected the dock. They relied a lot on our
22 photographs and our inspection reports to produce their own
23 analysis.

24 Q. In your opinion, was the 71 safe to go to sea under any
25 conditions?

1 A. In what year?

2 Q. When you inspected it last.

3 A. When I inspected it last, as a company we decided to not
4 certify the dock for lifting ships. At the time, our opinion
5 would be it not safe for ocean tow, either, even in a
6 three-piece configuration.

7 Q. So was the 70 appropriately compared to the 71 for safety
8 to go to sea?

9 A. In my opinion, no.

10 Q. Was the 70 safe to go to sea with appropriate restrictions?

11 A. Based on what I've seen, yes.

12 MR. HOWARD: Thank you.

13 CROSS-EXAMINATION

14 BY MR. SIMMS:

15 Q. So you said that Heger never did an inspection of the 70,
16 correct?

17 A. That's correct.

18 Q. But that's not right, isn't it? Didn't Heger do a dry dock
19 gauging survey September 2013?

20 A. We did not.

21 Q. Okay.

22 And you'd never seen that ultrasonic gauging survey, have
23 you?

24 A. I have seen that.

25 Q. You have seen it?

1 A. Yes.

2 Q. When did you see it?

3 A. Vigor asked our opinion of it right after it was done, and
4 we said the pontoon deck was shot.

5 Q. Okay.

6 And why did Vigor ask your opinion of the survey?

7 A. You'd have to ask Vigor their intentions.

8 Q. Okay.

9 And so since that survey, did Vigor ever approach you
10 asking for engineering assistance with upgrading or fixing the
11 things the survey showed?

12 A. No, they did not.

13 Q. Okay.

14 Now, you say you went in to Captain Shaw's report, and you
15 noticed that -- at the critical areas, you could see pictures
16 that gave you confidence that they were in great shape, right?

17 A. Define your question of which areas were in great shape.

18 Q. Well, there were certain areas that were important to be
19 intact for longitudinal bending, right?

20 A. That's correct.

21 Q. You testified about that?

22 A. Yes.

23 Q. Okay. And when you looked at the pictures in Captain
24 Shaw's report, were there pictures in there that showed those
25 areas?

1 A. Yes.

2 Q. Those critical areas? All right.

3 But you've told us that when you look at pictures, you
4 can't really tell what the situation of the steel is, can you?

5 A. You cannot tell how much corrosion there is, no.

6 Q. Exactly. And so you'd want to look back at the ultrasonic
7 survey, right?

8 A. Ideally, yes.

9 Q. Ideally, yes, but did you do that?

10 A. For the 69, we did not look at a UT survey.

11 Q. Did you do it for the 70?

12 A. There's none available before it left.

13 Q. There was none available. Well, here it is. It's right
14 here. You told me that Heger -- that Vigor asked you to look at
15 the ultrasonic survey, and you did, didn't you?

16 A. I did.

17 Q. But for the purpose of your report, you never went back to
18 the ultrasonic survey, which is reliable about the thickness of
19 steel, to see whether you could believe your eyes, basically?

20 A. I didn't feel confident using it as a basis of my report
21 because it was three years prior to the departure of the dock --

22 Q. Okay --

23 A. -- and I didn't know which areas of the dock could have
24 been maintained --

25 Q. Understood --

1 A. -- and usually those reports are done to fix the dock, if
2 areas come up as corroded.

3 In general, looking at other portions of the UT survey,
4 which did not capture elements that are critical to the strength
5 of the dock, it was more viewed towards those transverse frames
6 and the pontoon deck that are critical for lifting a ship. It
7 didn't have the information that would be needed for doing
8 longitudinal strength calcs. But the other areas of the dock,
9 that report highlights things that are 18 percent corroded, and
10 there's very few areas of dock, besides the pontoon deck, that
11 reached that threshold.

12 Q. Okay. So it didn't -- so now you're remembering that
13 ultrasonic survey didn't have the information needed to do the
14 calculations for your report, right? Is that what you're
15 saying?

16 A. I think "now you're remembering" is a mischaracterization
17 of what I just said.

18 I said I knew about it. That report supports, in my
19 opinion, my assumption made for the calculation.

20 Q. Okay. But the report didn't have -- in your memory -- an
21 assessment of the critical parts of the 70 that you need to be
22 confident that those critical parts would support the
23 longitudinal forces, right?

24 A. That's correct.

25 Q. Okay. And the way to be certain about that -- and that's

1 important to know -- for Vigor to know before the tow left out,
2 right?

3 A. It's --

4 Q. -- that those elements were in sufficient shape to support
5 longitudinal bending. Wasn't that important?

6 A. A UT survey would justify my assumptions, or any
7 assumptions that were done for calculations at the time.

8 Q. If it was done.

9 A. Yes.

10 Q. But it wasn't.

11 Okay. Now, before the tow, Dan Keen approached you and
12 asked for a drawing, right?

13 A. That's correct.

14 Q. And he drew up where the pad eyes were going to go. It was
15 in red pen, I remember seeing, right?

16 A. That's correct.

17 Q. And he just asked you to put this into a plan and send it
18 back?

19 A. Yep.

20 Q. He didn't ask Heger to do any engineering calculations for
21 the suitability of this particular configuration, right?

22 A. That's correct.

23 Q. Didn't ask any engineering calculations of the suitability
24 of a one-piece tow of a 70-year-old, corroded dry dock in poor
25 condition, and quoting the surveyor, right?

1 A. Yes.

2 MR. HOWARD: Objection; mischaracterizing, Your Honor.

3 THE COURT: Sustained.

4 Q. (By Mr. Simms) Now, you see this drawing for a one-piece
5 tow of the 70, that you knew was not in the shape of the 69, but
6 you didn't say anything, right?

7 A. They asked for a CAD sketch of the redline drawing, so
8 that's all we did.

9 Q. And you sent it back, and that was it?

10 A. We had notes in our drawings indicating that no engineering
11 analysis was done, and that had to be signed off on by a marine
12 warranty surveyor, so we accurately pointed out in our drawing
13 that we did not do engineering analysis.

14 Q. Okay.

15 And so as Richard Shaw walked through, crawled through the
16 70 and he looked at things, looked at pictures -- before I go
17 back -- so you looked at a lot of pictures of the -- well, let
18 me go back before that.

19 You didn't look at any pictures of the 70, other than those
20 in Shaw's report, right?

21 A. For doing what activity?

22 Q. In Shaw's -- Shaw went through, and his assistant, and he
23 took pictures and he put them in his report, right?

24 A. Yeah. I saw all those pictures.

25 Q. Those were the only pictures you looked at, right?

1 A. That's correct.

2 Q. The only ones in Shaw's report.

3 A. Yeah, the 500 photographs or so?

4 Q. You didn't look at all 500?

5 A. Of course I did.

6 Q. Okay. In any of those, you didn't see any evidence of
7 recent repairs, did you?

8 A. I did.

9 Q. You did?

10 A. Yeah. There were repairs made above the sally port. I
11 remember seeing those. Other areas of the dock, I can't talk
12 about, but that one, in particular, stuck out to me because of
13 the fresh paint.

14 Q. Okay. But you didn't see any repairs in the critical areas
15 for longitudinal bending?

16 A. The dry dock, which I consider to be the most critical for
17 longitudinal strength of the dock, the interior area of safety
18 deck had its original paint still intact, which, to me,
19 indicates no corrosion. The top deck looked in pretty good
20 shape, to me, in those photographs. I didn't see any signs of
21 corrosion. I do agree that there were signs of corrosion inside
22 the ballast tanks, and there were not very good pictures,
23 specifically, of the pontoon bottom to reach any conclusion as
24 to what shape that would be in.

25 Q. And let's talk about the safety deck. If the safety deck

1 holds, the 70 floats, right?

2 A. If all the other ballast tanks are floated?

3 Q. Yes.

4 A. Yes, it floats.

5 Q. Okay. So if you were Dan Keen -- okay? -- and somebody
6 asked you, Will this float? What would you tell them?

7 A. I need more context than that.

8 Q. Okay. You'd tell them, If the safety decks are intact,
9 you're in good shape, right?

10 MR. HOWARD: Objection. I think this is lacking
11 foundation and calling for speculation as phrased. It might be
12 relevant, but there is inadequate foundation.

13 THE COURT: There is. Sustained.

14 Q. (By Mr. Simms) You testified that the 70 will float if the
15 safety decks remained intact, right?

16 A. I said it will float if all the ballast tanks are flooded.

17 Q. If all of the ballast tanks are flooded and the only thing
18 remaining is the safety deck tanks, it will float, right?

19 A. That's correct.

20 Q. Okay.

21 So put yourself in the position of Dan Keen, who got asked
22 on the night before the sinking, he said Western said, Would you
23 run the numbers on the GHS program, and tell me whether it would
24 float? Okay. I want you to put yourself there. Okay?

25 Should Dan have said, Yeah, it'll float as long as the

1 safety deck is intact?

2 MR. HOWARD: Objection; relevance, Your Honor. That
3 wasn't a question asked of him. That wasn't a statement made.
4 I think we're off on pure speculation now.

5 THE COURT: The objection is sustained.

6 MR. SIMMS: Okay. All right.

7 Q. (By Mr. Simms) So do you use the GHS program?

8 A. I do.

9 Q. All right. And for the purpose of your analysis, did you
10 use the GHS program?

11 A. For doing this analysis?

12 Q. Yes.

13 A. Yes, I did.

14 Q. Okay.

15 And did you run the numbers that showed you why the dock
16 sank on the GHS program?

17 A. Yes. I did a flooding analysis of, in theory, what it
18 would take to sink the dock.

19 Q. Okay. And did your flooding analysis show that there was a
20 certain set of characteristics that would sink the dock?

21 A. Yes.

22 Q. Okay. And it was possible for you to do, right?

23 A. Yes.

24 Q. Okay. And what were those characteristics?

25 A. I found that, in my assumptions, if you -- I was trying to

1 recreate the condition the crew observed, which was a port list
2 and a bow-down trim, which was, you know, difficult to create.
3 You had to damage about 75 percent of the ballast tanks in the
4 dock. Even then, I found that to produce a 17-degree
5 heel-to-port and a slight bow-down trim. But that alone would
6 not sink the dock. You had to damage, in my rough estimation,
7 maybe four to five of the safety compartments on the dock to get
8 it to go down and sink.

9 Q. Okay.

10 And when you did that analysis -- all right? -- what would
11 the dock have to look like before it sank?

12 A. It doesn't necessarily have to look like anything. I mean,
13 I'm assuming you're asking from a vantage point of a very long
14 distance --

15 Q. Yes.

16 A. -- and you may not notice damage at that distance,
17 especially in the fog, which many people have testified to.

18 Q. Okay.

19 A. If you look up close, you could see tears and buckles, you
20 know, in the upper portions of the wing wall. Those are the
21 areas most likely to have damage.

22 Q. Okay.

23 So the men on the tug could be looking at the dock and
24 think it seems to be just fine, right?

25 A. In terms of --

1 Q. In term of it floating.

2 A. I mean, based on it floating, yes.

3 Q. Okay. So to find out whether it was going to sink, they
4 need to get reliable information from Dan sitting behind the
5 program, right?

6 MR. HOWARD: Objection, Your Honor; lack of
7 foundation; speculation.

8 THE COURT: Sustained.

9 MR. SIMMS: Uh-huh. Okay.

10 Q. (By Mr. Simms) But you were able to duplicate what
11 conditions would cause the dock to sink, right, on the program?

12 A. You have to keep in mind it's a static analysis where that
13 dock -- it solves for equilibrium with programs. So I damage
14 those tanks, and those tanks flood, you know, it doesn't have a
15 time stamp to it. They're assumed to be flooded, and it tells
16 you what condition the dock is in.

17 If a tank is partially flooding over time, you can't put
18 that information into the program.

19 Q. Uh-huh. Okay.

20 And so did you run a scenario showing that the safety deck
21 had failed?

22 A. As part of what I thought, my analysis of what it would
23 take to sink the dock, I ran a number of cases without the
24 safety deck flooded, and it wasn't until I flooded the safety
25 deck that the dock went down and sank.

1 Q. Uh-huh. Okay.

2 All right. The 69, let's talk about the sequence of things
3 with the 69. So there was what you call -- I think you called
4 it a work order first?

5 A. Yes. It's a work-breakdown, work specification.

6 Q. And there was a bunch of work done on the 69, correct?

7 A. That's correct.

8 Q. Okay. So it was, basically, bringing it back to new
9 condition, wasn't it?

10 A. I wouldn't say new. They did a few things to the dock,
11 like paint the bottom structure, but they didn't paint the
12 entire dock. They installed moorings, they installed stairways,
13 that sort of thing.

14 Q. To this day, 69 is NAVSEA certified, right?

15 A. No, that's not correct.

16 Q. Okay. The last time it was NAVSEA certified was?

17 A. I don't know the answer to that.

18 Q. Okay. At the time it came out of Portland, was it NAVSEA
19 certified?

20 A. It was not.

21 Q. Okay. And since then, you haven't been involved in any
22 NAVSEA certification of the 69?

23 A. In my time at Heger, we have never been involved with the
24 NAVSEA certification. I don't know when Vigor decided to let
25 that lapse --

1 Q. Okay.

2 A. -- but I assume it was NAVSEA certified at some point.

3 Q. Okay.

4 So you didn't get reported -- you didn't get asked to do
5 the analysis of a one-piece tow until after all that work had
6 been done on the 69, did you?

7 A. So by actual work, I don't know when the timeline was. We
8 produced a work specification, which is, essentially,
9 instructions of everything that needs to be done. Vigor had us
10 produce that package to maybe get pricing for what it would take
11 to bring this dock up into a shape where it would be usable in
12 Seattle. So that's the first step, preparing the specification,
13 shopping it around, getting pricing.

14 And then you execute the work. They, actually, ended up
15 dry docking it in their own dry dock in Portland, which we
16 designed; did all the work, and then towed it to Seattle. And I
17 don't know how much time transpired between all those events.

18 Q. Okay. So all that work was done in that specification,
19 then Rich Shaw gets asked to survey the one-piece tow, right?

20 A. Uh-huh.

21 Q. And the one-piece tow was done in May?

22 A. Yeah, of 2015.

23 Q. And that was the time you did your analysis for a one-piece
24 tow, right? It was May?

25 A. I don't know the timeline, but I thought we did the report

1 in '13 or so.

2 Q. Uh-huh, uh-huh.

3 A. It took a lot of time to fix the dry dock up and get it
4 into a condition where they, you know, could use it in Seattle,
5 and transport it and to have it fit into the mooring system at
6 Seattle. The dry dock we designed, which is, you know, an
7 80,000-ton dry dock, that didn't arrive until October 2014, I
8 think.

9 Q. Uh-huh. Uh-huh. Okay.

10 And what's the sequence there? The 69 replaced the 70,
11 right?

12 A. In Seattle, that's correct.

13 Q. Right.

14 And so there was, in your memory, about two years' worth of
15 work on the 69 before it got moved, one piece, to Seattle?

16 A. It wasn't two years' worth of work; it was two years' worth
17 of planning.

18 Q. Two years' worth of planning. Okay.

19 And those other docks you said were moved one piece, you
20 didn't have any idea what condition they were in when they were
21 moved?

22 A. No.

23 Q. Well, the 71 was in excellent condition, wasn't it, when it
24 was moved one-piece?

25 A. I assume it was in good condition. It was NAVSEA

1 certified.

2 Q. But you don't know, one way or the other, if those other
3 docks moved in one piece, whether they were in excellent
4 condition, good condition, any condition?

5 A. We weren't physically -- I, personally, wasn't actively
6 involved in those jobs, and I don't believe Heger, as a company,
7 was. I assume they were in good condition.

8 Q. Uh-huh. Okay.

9 We talked about the 70 and that Heger has
10 never inspected -- talked about the 69. Heger's never inspected
11 the 70. The 71, you did inspect.

12 Okay.

13 So corrosion. Okay? Now, you gave an average in your
14 report of 15 percent, but let's look at the critical members --
15 okay? -- the longitudinal support.

16 There could have been some of those more corroded than 15
17 percent, right?

18 A. Yes. I said that in my report as well.

19 Q. Okay. All right. And the only way you'd know whether
20 there's more corrosion than 15 percent is an ultrasound survey,
21 right?

22 A. Yes, definitively, yes.

23 Q. All right.

24 And so you don't really have any basis for confidence in
25 this ten-foot-minimum sea -- whatever, recommendation, it's been

1 called a limitation. You don't have any basis for confidence in
2 that because you never measured the critical elements
3 ultrasonically, do you?

4 A. My bases is my experience and, you know, the 50 or 60
5 surveys I've done on dry docks, and what I've seen in dry docks
6 of this age, and I don't believe my assumptions to be wrong; if
7 anything, conservative, especially in the upper portions of the
8 wing wall.

9 Q. But you didn't -- you were relying on a survey that turn
10 only on a visual inspection?

11 A. Yes.

12 Q. Okay.

13 A. I assume a visual inspection by a qualified individual
14 would highlight problem areas of the dock, if there were any
15 found.

16 Q. But he couldn't see how much wastage there was, with
17 reliability, right?

18 A. No one can see if there is wastage. People can see if
19 there's scaling occurring. You know, that's one of the jobs
20 of -- you know, myself, as a qualified inspector, is to identify
21 areas, with high levels of skill, and recommend those areas be
22 further examined with UTs to see how much wastage there is
23 there.

24 Q. So Vigor went to the trouble of commissioning a survey or
25 an assessment -- two assessments for the move of the 69, in calm

1 weather, from a short distance, from Portland to Seattle, but
2 they never went through the trouble of asking for such an
3 assessment for a one-piece tow all the way from Seattle to
4 Ensenada, right?

5 MR. HOWARD: Objection; foundation, scope, and
6 relevance. He's not here as a dry-dock-operator expert.

7 THE COURT: That's great argument, Mr. Simms, but
8 sustained.

9 MR. SIMMS: Okay.

10 Q. (By Mr. Simms) And so what I need to ask you is, all
11 right, you're assessing professional behavior. Here, Vigor
12 commissions you -- okay -- to do a very detailed and lots of
13 calculations, a survey to show whether it's safe to move the 69
14 a short distance. All right? But Vigor does none of that for
15 the 70. Is that, in your viewpoint, professional and
16 responsible?

17 MR. HOWARD: Same objection, Your Honor.

18 THE COURT: Sustained.

19 Mr. Simms, I've given you more than your 20 minutes. Do
20 you have any other questions?

21 MR. SIMMS: Okay. I think we're concluded, Your
22 Honor.

23 THE COURT: Mr. Naylor, thank you. You may step down.

24 MR. HOWARD: Your Honor, I do have two questions, if I
25 may?

1 THE COURT: All right.

2 MR. HOWARD: And I really will keep it to two
3 questions.

4 REDIRECT EXAMINATION

5 BY MR. HOWARD:

6 Q. A background question before I ask the question.

7 It's forensic versus real life.

8 Are the marine warranty surveyors being hired for forensic
9 purposes --

10 MR. SIMMS: Beyond the scope of cross, Your Honor.

11 THE COURT: Sustained.

12 Q. (By Mr. Howard) You were asked about -- well, you relied
13 upon a marine warranty surveyor in your opinions in this case;
14 is that correct?

15 A. That's correct.

16 Q. Why?

17 A. They're usually, in our opinion, the authority for
18 determining if something is seaworthy or not.

19 Q. Why is that?

20 A. You know, that's -- essentially, their job is to sign off
21 on suitability of tow, towing arrangements, you know, things
22 that need to be done to prepare a vessel, like a dry dock, for
23 an open-ocean tow.

24 Q. And in terms of your attempting to recreate what happened
25 in this case -- what you were asked about a moment ago -- was

1 that based upon being told there was a three- or four-foot list?

2 A. Sorry. Repeat your question.

3 Q. When you were trying to recreate what happened in your
4 modeling, was that trying to recreate its sinking, or was that
5 trying to recreate a three- or four-foot list?

6 A. Yes, it was trying to recreate the list and the trim
7 towards the bow end of the dock.

8 Q. Were you recreating a three- or four-foot list, or a more
9 severe list?

10 A. Well, I first started by seeing how much damage it would
11 take to create a three- or four-foot list, and then I expanded
12 my analysis to see how much damage it would take to actually
13 sink the dock.

14 Q. Structurally, 69, 70 were the same?

15 A. Yes, they are the same.

16 Q. But comparing the 70 to 71 is not a pure comparison --

17 MR. SIMMS: Your Honor, this is beyond the scope --

18 MR. HOWARD: He asked about the 71.

19 MR. SIMMS: -- of the cross.

20 THE COURT: Counsel, that's Question No. 8.

21 MR. HOWARD: Okay. Thank you.

22 THE COURT: Mr. Naylor, thank you. Safe travels.

23 Laurie, do we still have an open mike?

24 THE CLERK: We do.

25 THE COURT: Okay. Shut it down, please, and, Nancy,

1 let's go off the record.

2 (Discussion held off the record.)

3 THE COURT: We'll see you Wednesday at nine o'clock,
4 unless we hear from you otherwise.

5 (Proceedings adjourned at 4:42 p.m.)

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

C E R T I F I C A T E

I, Nancy L. Bauer, CCR, RPR, Court Reporter for the United States District Court in the Western District of Washington at Seattle, do hereby certify that I was present in court during the foregoing matter and reported said proceedings stenographically.

I further certify that thereafter, I have caused said stenographic notes to be transcribed under my direction and that the foregoing pages are a true and accurate transcription to the best of my ability.

Dated this 5th day of August 2021.

/S/ Nancy L. Bauer

Nancy L. Bauer, CCR, RPR
Official Court Reporter